S&ME

Health Dept. Copy

To: Iredell County Environmental Health Department

From: Paul G. Penninger, LSS
Kathleen Saunders, LSSIT

RE: Farms Phase V – Crescent Resources, LLC – Lot 605 Fast Track

Date: March 29, 2007

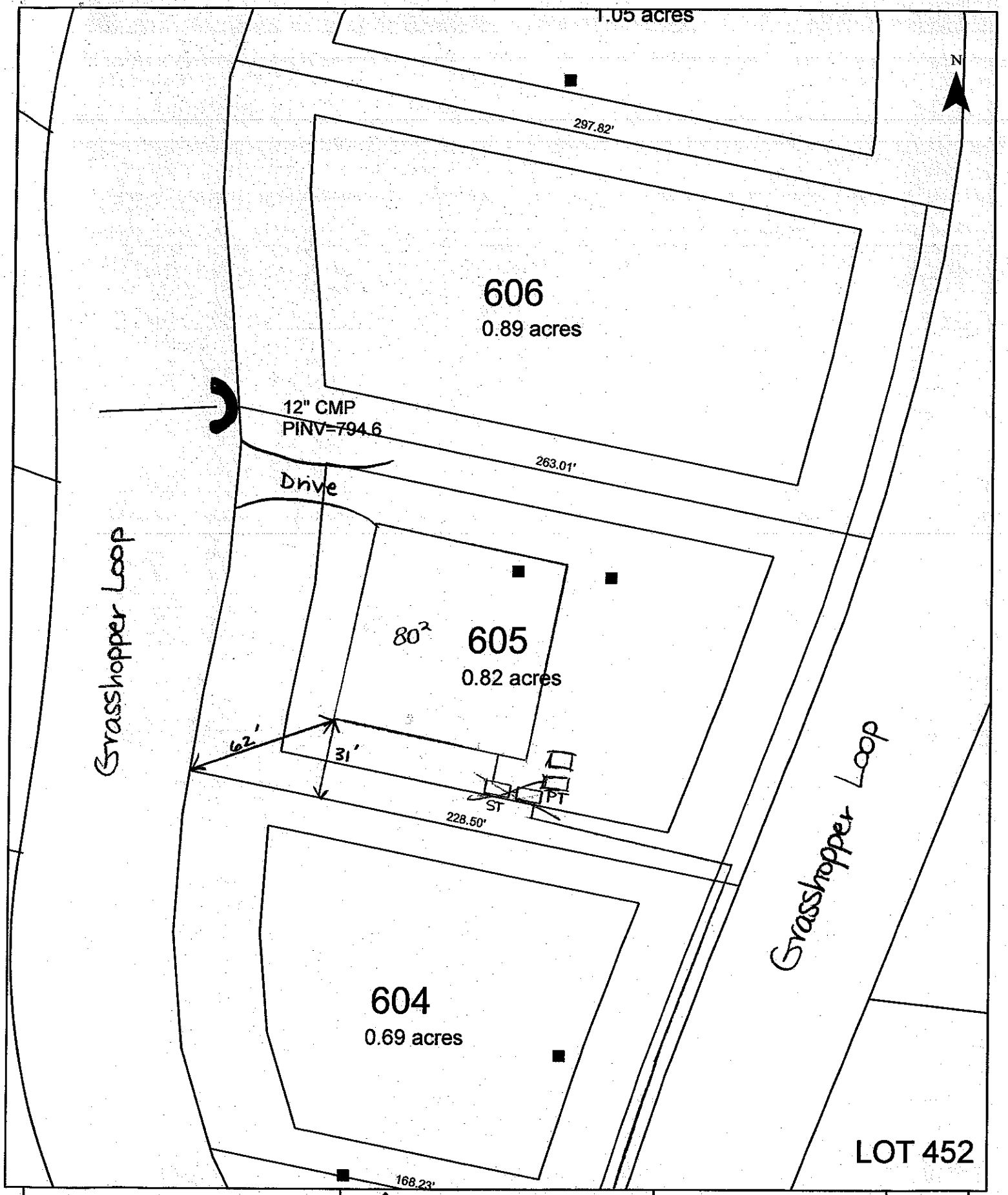
Attached is the Fast Track information required to place Lot 605 Farms Phase 5 on your developer work list to review the septic system layouts. Please call when you are ready to review the lot and we will meet you on the site.

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.

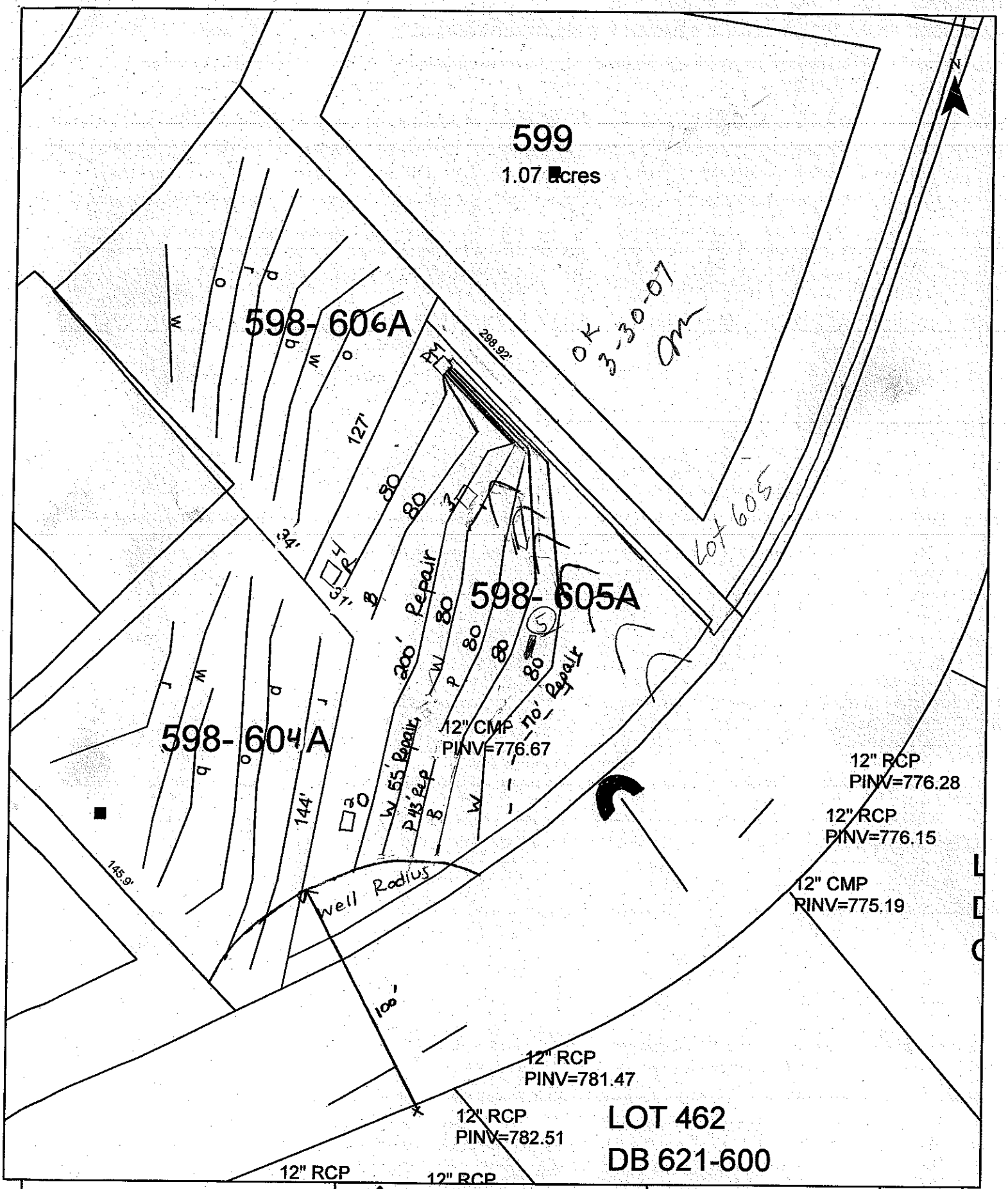
All information and specifications were prepared in conjunction with the Fast Track Program for Iredell County and are for the use of Crescent Resources, LLC in acquiring permits under the Fast Track Program. All soil work has been approved by David Hinson of the Iredell County Health Department. It is ultimately the Iredell County Health Department's responsibility to verify all specifications before permitting and/or septic system installation.

Lot 605 The Farms Fast Track Septic System Information

Number of Bedrooms	**4**
Basement or Crawl	**Crawl Space**
Design Flow (gpd)	**480**
Primary System LTAR (gpd/ft2)	**0.25**
Primary System Type	**25% Reduction**
No. Lines	6 (See Table)
Total Linear Feet	480
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	1690' of 2.5" SCH 40 PVC
Flow Rate through the system	33 gpm
Elevation head	Approx. 6'
Pressure head	2.0'
Friction head	15.4'
20% Contingency	4.7'
Total Head	28.1'
Pump Requirements	33 gpm @ 28.1' 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. 7.3 min.
Check Valve	Yes
Siphon Break hole	Yes
Repair System	**LP PPBPS**
Total Linear Feet	368
Repair Loading Rate	0.25



Scale: 1 inch equals 50 feet	S&ME	The Farms - Phase V	FIGURE
Drawn by: JBP		Lot 605	1
Reviewed by: KS		Iredell County, NC	
Date: February, 2007	ENVIRONMENTAL SERVICES · ENGINEERING · TESTING	S&ME Project #1588-05-070	



Scale: 1 inch equals 50 feet	S&ME	The Farms - Phase V	FIGURE
Drawn by: JBP		Lot 605	2
Reviewed by: KS		Iredell County, NC	
Date: February, 2007	ENVIRONMENTAL SERVICES · ENGINEERING · TESTING	S&ME Project #1588-05-070	

Table: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elevation (Ft.)
1	System	Red	25% Reduction	80 endfed	790.0
2	System	Blue	25% Reduction	80 endfed	
3	Repair	Orange	LP PPBPS	200	
4	System	White	25% Reduction	80 endfed	
5	Repair	White	LP PPBPS	55	
6	System	Pink	25% Reduction	80 endfed	
7	Repair	Pink	LP PPBPS	43	
8	System	Blue	25% Reduction	80 endfed	
9	System	White	25% Reduction	80 endfed	
10	Repair		LP PPBPS	70	783.0
				Total System: 480'	
				Total Repair: 368'	

Tank	Red	1500 gal (2 compartment)	804.0
Pump Tank	Red	1500 gal.	804.0
House	Blue		804.0

Manifold Information	
Tap Size (In.)	1/2
Tap Material	SCH 80 PVC
No. Taps	6
Barrel Size (In.)	4
Barrel Material	SCH 80 PVC
Flow (gpm)/Tap	5.5

Note: Elevations estimated from 1 foot site specific topographic map and must be verified before obtaining an ATC. System and repair located offsite on easement 609-605A

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: Farms V — APPLICATION DATE: ___
ADDRESS: ___ — DATE EVALUATED: ___
PROPOSED FACILITY: House — PROPOSED DESIGN FLOW (.1949): 480 — PROPERTY SIZE: ___
LOCATION OF SITE: Lot 005 — 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) STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1935 SAPRIC CLASS	OTHER PROFILE FACTORS .1941 RESTR. HORIZ	PROFILE CLASS & LTAR
1 3	L	0-7	WK SBK SCL	FR SS/SP	Br		F sap		0.3
		7-18	Mo SBK C	FR SS/SP	Red		C sap	Relic gray	
		18-36	WK SBK SCL	FR SS/SP	Red				
		36-50	MA SL sap	FR ns/np	multi				
2	L	22". Bedrock Refusal							US
3	AB #1 L 5-7%	0-4	Mo GR SL	FR ns/np	Br				0.3 to 44"
		4-28	Mo SBK C/SC	FR SS/SP	Br Red		F sap		
		28-38	WK SBK SCL	FR SS/SP	Red		C sap		
		38-44	MA SL sap	FR ns/np	multi				
		44"	Fi sap						
4		0-22	gr brn SL	FR SS-NSNP					4
		22-26	SBK LC	FR SP		4			
		36+	CR						

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

OTHER FACTORS (.1946): ___
SITE CLASSIFICATION (.1948): ___
EVALUATED BY: Jacob Presley
OTHER(S) PRESENT: ___

COMMENTS:

0-9 gr brn sl fr NSNP

9-30 massive SLSAP fr NSNP .45 to 30"

30-42 CR

42-53 massive c/SAP mat

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ON-SITE WASTEWATER SECTION

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

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Farms V — APPLICATION DATE _____
ADDRESS: _____ DATE EVALUATED: _____
PROPOSED FACILITY: House — PROPOSED DESIGN FLOW (.1949): 480 — PROPERTY SIZE: _____
LOCATION OF SITE: Lot 598 — 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 CONSISTENCY/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1935 SAPRIC CLASS	.1944 REDOX/ REDUC.	PROFILE CLASS & LTAR
1			New Lot 598 - 605A						
2									0.25-0.3 WR content
3									0.25+ 42" C yel Br below F class
L		0-6	Mo GR SL	FR ns/np	Br				
		6-22	WK SBK SCL	FR SS/SP	Red Br				
		22-38	Mo SBK CL	FR SS/SP	Red Br		C Mn		0.25-0.3
		38-48	WK SBK SCL	FR SS/SP	Red Br		F sap & WR		

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Usable Space (.1949)		
System Type(s)		
LTAR		

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

SB-605-A

#5 0-17 wk sbk dk brn CL fr ss sp few mn

17-33 m sbk dk reddish brn C fr ss sp exp few small rock 25-03

33-51 m sbk CL fr ss sp few y w. rock

8/10

MP 9156
50'
40
604
60'
50'
Drive
605
Roadbed
AB1
795
790
810
805
800
795
Offsite
Easement
605A
790
GRASSHOPPER CIRCLE (S.R. #
60' PUBLIC R/W