

7031 SAMPLE RD

02320102

L37

1/11/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6765B WASPS App #: 1302

Primary ES assigned to project: DJ

Secondary ES assigned to project:

Project Type: New System ☑ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☐	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☐	No ☐	N/A ☑
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☐	No ☐	N/A ☑
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☑
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 5 Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR .3	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b) 130A-336	Proposed System Type stated-Repair	Yes ☑	No ☐	N/A ☐
(a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☐	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☐	No ☐	N/A ☑
130A-336(a)(1)	Property line lengths shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐
	Operation Permit			
.1937(i)	System type as described in table V(a) of rule .1961	Yes ☐	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☐	No ☐	N/A ☐

II. WASPS Review:

Construction authorization issued	Yes ☐	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

IA issued date: _____

OP issued date: _____

Review performed by: _____ Date performed: 11/26

200 chk 1382

SEPTIC FEE: 200
DATE: 9/7/06
CRT [ ]

PERMIT APPLICATION FOR A RESIDENTIAL SITE
IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATION
FOR ON-SITE WASTEWATER SYSTEM
NEW WELL INSTALLATION OR REPAIR OF EXISTING WELL
MECKLENBURG COUNTY GROUNDWATER & WASTEWATER SERVICES

GWS – RES. APP 07/05

WELL FEE: _____
DATE: _____
CRT [ ]

FILE # 67653

SEPTIC / TYPE APPLICATION: ☐ NONE ☑ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFY PLOT PLAN

WELL / TYPE APPLICATION: ☑ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

JOB LOCATION INFORMATION:

TAX/PARCEL #: 02320102 PO
STREET ADDRESS: Sample Road
CITY: Huntersville
STATE: NC ZIP: 28078
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #: 27
TOWNSHIP:

☐ 0-MECKLENBURG ☐ 4-PINEVILLE
☐ 1-CHARLOTTE ☐ 5-MATTHEWS
☐ 2-DAVIDSON ☑ 6-HUNTERSVILLE
☐ 3-CORNELIUS ☐ 7-MINT HILL

BUILDING INFORMATION:

TYPE OF BUILDING:

☐ SINGLE MOBILE HOME (S) ☐ MODULAR HOME (M)
☐ DOUBLE WIDE (D) ☐ MULTIPLE FAMILY (U)
☑ HOUSE (H) ☐ OTHER

HEATED SQUARE FOOTAGE: ~5000
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 8

FOUNDATION FOR RESIDENCE:

☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:

NUMBER OF BEDROOMS TO BE ADDED: NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE:

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☐ NO TYPE:

WATER SUPPLY:

☑ MUNICIPAL (M) ☐ PUBLIC (C) ☐ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER 'SPRINGS' (O)

PROPOSED USE OF WELL: ☐ N/A ☐ IRRIGATION ☐ POTABLE ☐ GEOTHERMAL ☐ OTHER

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES	☑ NO	WELLS, SPRINGS, OR WATER LINES	☐ YES	☑ NO
EXISTING WASTEWATER SYSTEMS	☐ YES	☑ NO	DESIGNATED WETLANDS	☐ YES	☑ NO
EASEMENTS OR RIGHT-OF-WAYS	☐ YES	☑ NO	GRADING/SOIL REMOVAL PERFORMED	☐ YES	☑ NO

PROPERTY OWNER:

NAME: Faison - Sample Road, LLC
ADDRESS: 121 W. Trade St., 27th Floor
CITY: Charlotte
STATE: NC ZIP: 28202-5399
HOME PHONE: WORK PHONE: 704 972 2674
MOBILE PHONE: FAX: 972 2676

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: STME Tonny Jacobs
ADDRESS: 385 Timber Rd
CITY: Mooresville
STATE: NC ZIP: 28115-7899
HOME PHONE: WORK PHONE: 704-662-8625
MOBILE PHONE: 704 582-9219 FAX: 662-8735

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 2006
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? 2006

*An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Tonny C Jacobs, LSS 9/7/06
Owner's/Agent's Signature Date

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT & NATURAL RESOURCES DIVISION
OF ENVIRONMENTAL HEALTH ON-SITE
WASTEWATER SECTION

*A Well Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Owner's/Agent's Signature Date

MECKLENBURG COUNTY HEALTH DEPARTMENT
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202 704-336-5103 / FAX: 704-336-6894

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	05/22/07	**Amount:**	1,700.00
Receipt #:	50852	**Tendered:**	1,700.00
Check / Auth #:	CHECK 5000	**Returned:**	0.00
Received By:	AIDOOJK		

Account Information

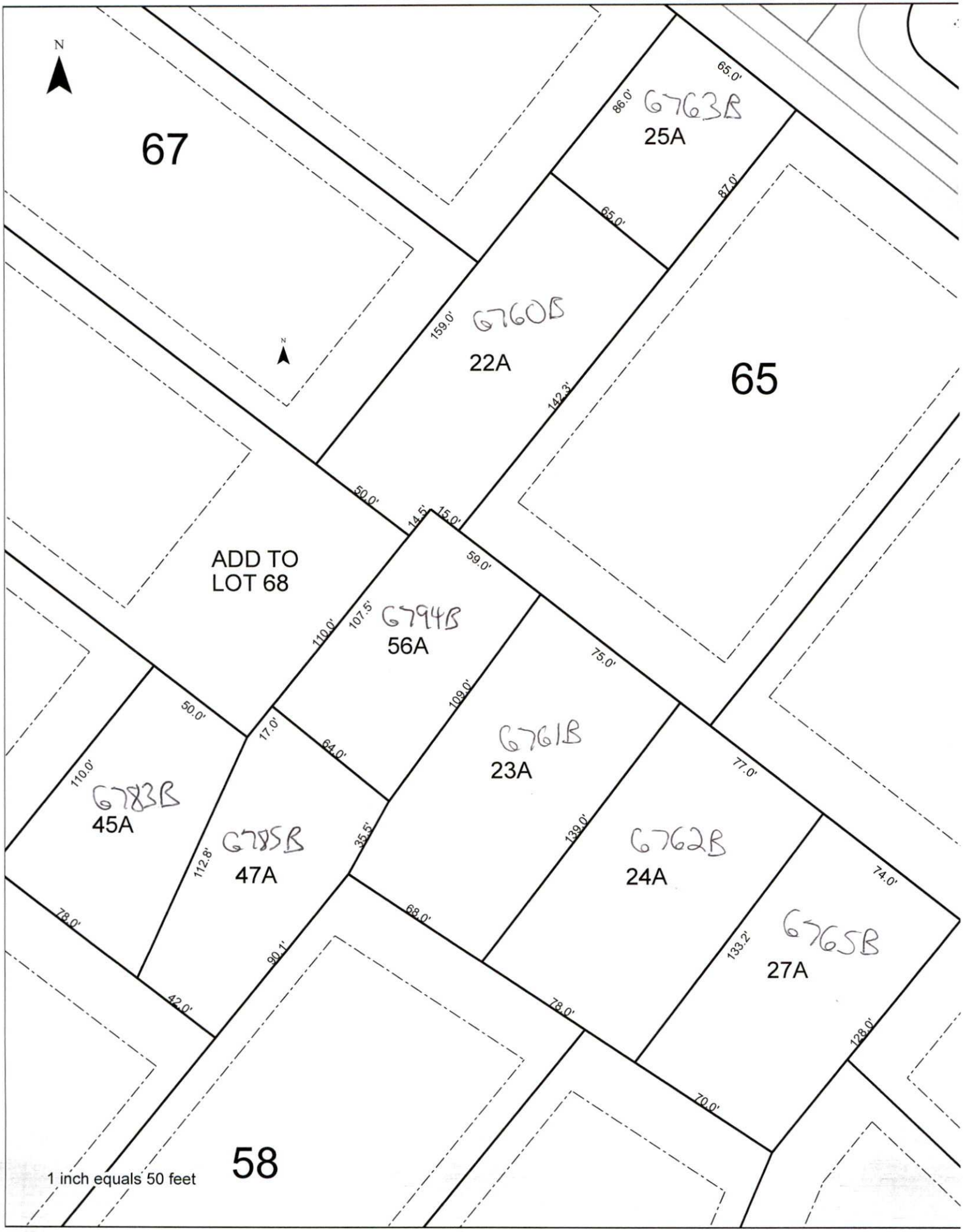
Account #: 200000
Contractor: FASION-SAMPLE ROAD
Attn:
Address: 121 W TRADE STREET 27TH FLR
Address:
City/State/Zip: CHARLOTTE, NC 28202

Item	Description	Permit#	Quantity	Unit Price	Total Price
0702	Optional Site Evaluations LOT 21-25, 27-29, 51-55, 68		1	1,700.00	1,700.00

file # 67665B

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance


N
67
65.0'
86.0'
6763B
25A
87.0'
65.0'
159.0'
6760B
22A
142.3'
65
50.0'
14.5'
15.0'
ADD TO
LOT 68
59.0'
110.0'
107.5'
6794B
56A
75.0'
109.0'
6761B
23A
50.0'
17.0'
64.0'
110.0'
6783B
45A
6785B
47A
112.8'
35.5'
77.0'
139.0'
6762B
24A
74.0'
78.0'
90.1'
68.0'
133.2'
6765B
27A
42.0'
78.0'
128.0'
70.0'
58
1 inch equals 50 feet

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30001382** GWS File #: **6765B** Tax Parcel #: **023-201-02**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 8/17/2012

Type of Installation: Residential - New System Lot Number: 27

Structure Type: HOUSE Size (ft^2): 5000 # Bedrooms: 4 # Occupants: 8

Building Foundation: Crawl Space Water Supply: Municipal

II. Initial System Type: PPBPS (pressurized) **System Classification:** IVa

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	801	Total Trench Length (ft):	267
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

III. Repair System Type: PPBPS (pressurized) **System Classification:** IVa

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	800	Total Trench Length (ft):	267
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Jeremy Michelone

Signature: Jeremy Michelone, L.H.S.

Date Issued: 8/17/2007

Owner/Legal Agent: Terry C. Stubbs
Print Name

Signature: Terry C. Stubbs

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30001382** GWS File #: **6765B**

IV. Permit Conditions/Comments:

- Easement agreement forms shall be on file and the property shall be deeded and recorded prior to issuance of Construction Authorization.
- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Jeremy Michelone

Signature: _____

Date Issued: 8/17/2007

Owner/Legal Agent: _____
Print Name

Signature: _____

S&ME

GWS Septic System Design Review

		Approved	Disapproved
GWS File #:	6765B		
Design Review:	TCT 7-5-07	☒	☐
Field Review:	7/4/07	☒	☐

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

Date: June 26, 2007

To: Mr. Jeremy Michelone, R.S.
Mecklenburg County Env. Health Dept.

From: Jacob B. Presley, LSS
Toney C. Jacobs, LSS

RE: Request for an Improvement Permit for Lot 27 off of Sample Road.
MCHD File #6765B

FCD Development , LLC, is requesting an Improvement Permit for the above referenced lot. Mr. W.R. Marlin has evaluated the soils (see attached MCHD soil sheets) and S&ME, Inc. has flagged the system on the lot and repair on an off-site septic area. The septic lines have been located by S&ME and are shown on the attached maps. The attached sketch and specifications are not an Improvement Permit and are intended only to assist the MCHD in permitting the referenced lot off of Sample Rd.

This lot will utilize an off-site septic area for the septic system drainfield. Faison will install pipe from the lot to the septic area easement in the recorded septic supply line easement. The pipe will be 3 inch SCH 40 PVC unless otherwise specified by both the MCHD and the Town of Huntersville. Both the MCHD and Huntersville should sign off on the proposed pipe specifications and routing prior to installation. Both should also be advised of the installation schedule so they can inspect the installation as necessary.

We understand that a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The buyer will apply for the ATC. **No grading shall take place on the lot prior to obtaining the ATC from the MCHD.**

The proposed system is a TYPE IV and will require a contract with a Certified Operator to supply maintenance services for the septic system. Please review the attached system sketch and design specifications for the Improvement Permit. If necessary, the MCHD may add comments to the site plan or specifications. Please call if you have any questions or comments.

Design Specifications for Lot 27 off of Sample Rd.
MCHD File # 6765B

Daily Design Flow:	480 gpd
Number Bedrooms:	4 bdr.
Basement or Crawlspace:	Crawl Space
Septic Tank Size:	1500 gal
Pump Tank Size:	1500 gal
Primary System Loading Rate:	**0.3 gpd/ft^2**
Primary System:	**LP PPBPS**
Number and length of laterals:	1 line @ 51 ft. endfed 1 line @ 52 ft. endfed 1 line @ 110 ft. centerfed (2 lines @ 55 ft.) 1 line @ 54 ft. endfed
Total ft. of primary system:	267 ft. (267 ft. required)
Number of T&J Panels:	1 line @ 51 ft., 12 panels 1 line @ 52 ft., 12 panels 2 lines @ 55 ft., 13 panels each (26 total) 1 line @ 54 ft., 12 panels Total of 62 panels
Flow Rate through system:	31 gpm – use 5/32 in. holes with 3 ft. head pressure
Pump Requirements:	to be calculated by installer when specific house and pump tank locations are available
Dosing Volume:	approx. 223 gal. – (3.6 gal per panel)* 2.15 doses/day
Depth of effluent pumped per dose:	calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Check Valve:	yes

Siphon break hole:	yes
Repair System Loading Rate:	0.3 gpd/ft^2
Repair System:	LP PPBPS
Total ft. of repair	267 ft. (267 ft. required)

Notes: Before placement of cap block, one panel on each line, near the center of the field should be observed filling to make certain that it does not overflow the top chamber into the air chambers. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

PPBPS Design Worksheet							File #:	6765B
							Tax #:	
System Requirements							Address:	Lot 27 Sample Rd.
Design Flow	480	gpd						
LTAR	0.300	gpd/ft.^2					Consultant:	Jacob Presley - S&ME, Inc.
Linear footage	533	ft. (conventional)					Phone:	336-288-7180
Linear footage	267	ft. (50% Reduction)						
							Reviewed By:	TCT
Design Layout							Date:	7-5-07 ✓
Laterals	Length (ft)	# Panels	Calculated					
Line # 1	51	12	11.77					
Line # 2	52	12	12.00					
Line # 3	55	13	12.69					
Line # 4	55	13	12.69					
Line # 5	54	12	12.46					
Line # 6	0	0	0.00					
Line # 7	0	0	0.00					
Line # 8	0	0	0.00					
Line # 9	0	0	0.00					
Totals	**267**	**62**	61.62					

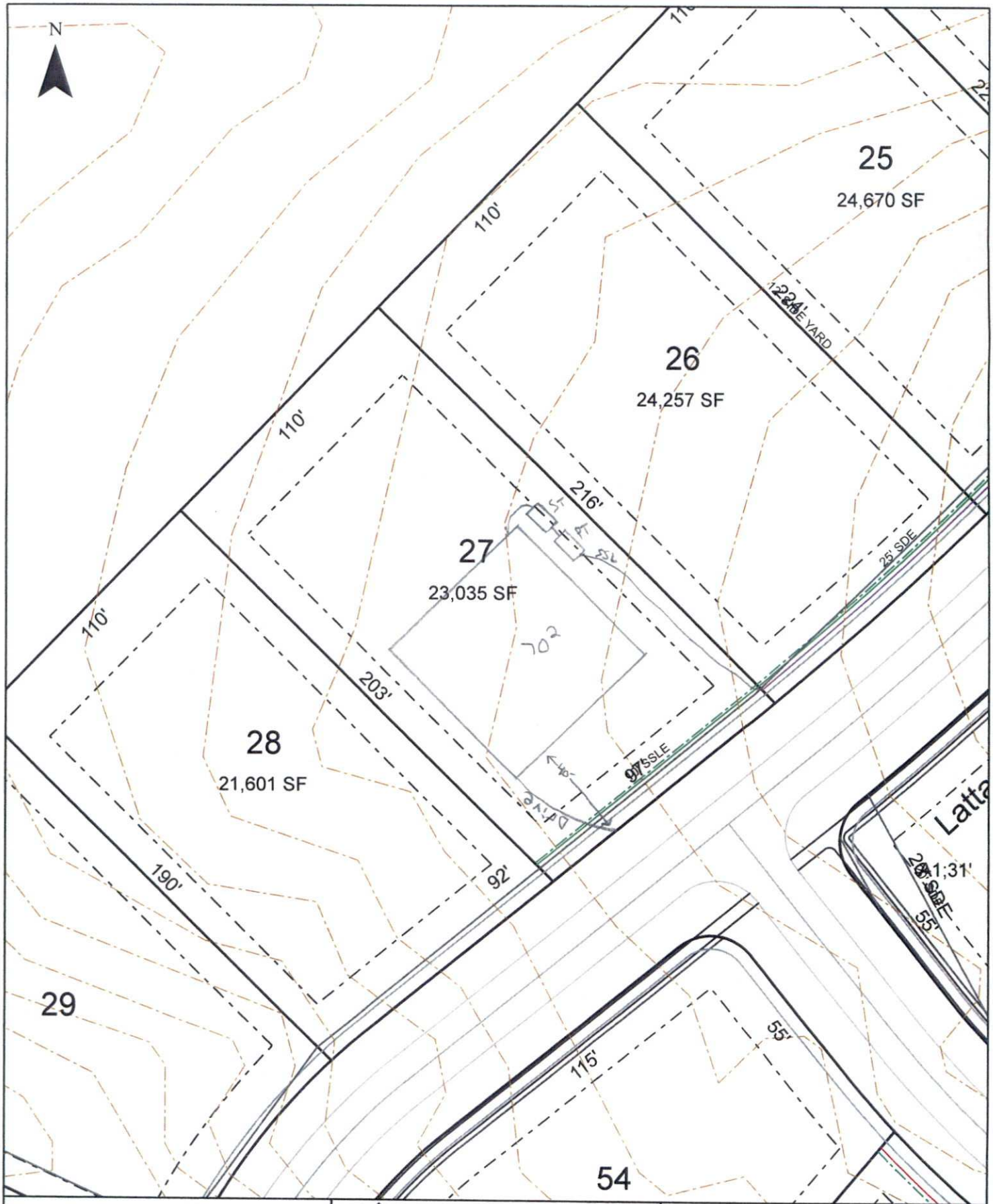
T & J Panels	
Linear Feet	# Panels
20	5
30	7
40	9
50	11
60	14
70	16

Absorption Area			
Length (ft)	Width (ft)	Area (ft^2)	
267	3	801	

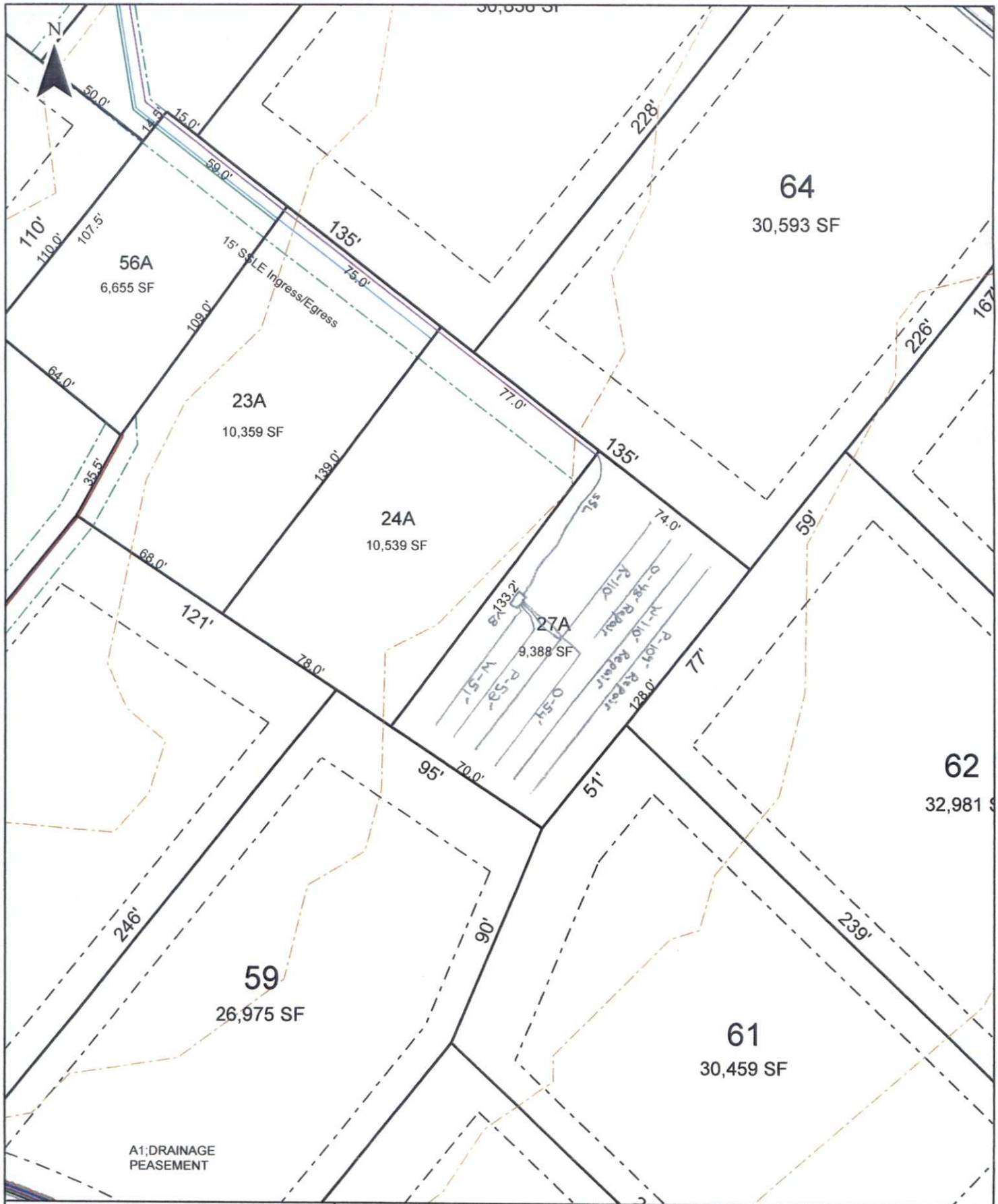
System Pressure Head	3	ft.	Value selected by system designer (must be between 2-5 ft.)
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)
Flow Rate per Orifice	0.5	gpm	Determined from orifice flow design table (use table from Flow Rate tab)
Total System Flow Rate	31	gpm	Total number of panels required multiplied by the orifice flow rate
System Dose Volume	223.20	gal.	Total number of panels required multipled by 3.6 gal./panel
Doses Per Day	2.15	cycles	Number of dose cycles per day based on daily design flow
Pump Run Time	7.20	min.	System dose volume divided by the total system flow rate
Pump Tank Volume / Inch	29	gal./in.	1,000 gal. Pump tank, volume is approximately 21 gallons per inch. 1,500 gal. pump tank, volume is approximately 29 gallons per inch
Pump Tank Drawdown	7.70	in.	Depth of effluent pumped per dose cycle.

Comments:

1. Install system using 3 ft. wide trenches.
2. Install drainlines on 9 ft. centers, level, and on contour.
3. System design requires effluent pump for distribution.
4. 100% Repair area is required.



Scale: 1 inch equals 50 feet	S&ME	Faison - Sample Road LLC	FIGURE
Drawn by: JBP		Lot 27	1
Reviewed by: TCJ		Mecklenburg County, NC	
Date: June, 2007	ENVIRONMENTAL SERVICES • ENGINEERING • TESTING	S&ME Project #1588-05-091	



Scale: 1 inch equals 50 feet	S&ME	Faison - Sample Road LLC	FIGURE
Drawn by: JBP		Lot 27 - Offsite Septic Area 27A	2
Reviewed by: TCJ		Mecklenburg County, NC	
Date: June, 2007	ENVIRONMENTAL SERVICES • ENGINEERING • TESTING	S&ME Project #1588-05-091	

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 2
Property ID: PO 023-201-02
Lot #: 27
File #: 6765B
AppID: 1382

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Sample Road LLC
Applicant: S & ME- T. Jacobs
Address: 121 W. Trade St., 27th Floor, Charlotte, N. C. 28202-5399
Date Evaluated: 4/12/07
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .53a
Location of Site: Off Sample Road
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-3	GR/SCL	FR/SEXP/SS/SP	>10" TO SOIL WETNESS	10+	N/A	NONE	US
		3-10	SBK/ABK/C	VFI/EXP/VS/VP					
2	"	0-3	GR/CL	FR/SEXP/SS/SP	>12" TO SOIL WETNESS	12+	"	"	"
		3-12	SBK/ABK/C	VFI/EXP/VS/VP					
3	"	0-3	GR/SCL	FR/SEXP/SS/SP	>10" TO SOIL WETNESS	10+	"	"	"
		3-10	SBK/ABK/C	VFI/EXP/VS/VP					
4	"	0-3	GR/SCL	FR/SEXP/SS/SP	>7" TO SOIL WETNESS	7+	"	"	"
		3-7	SBK/ABK/C	VFI/EXP/VS/VP					
					NO LTAR ASSIGNED				
				OFFSITE AREA INV.	6/12/07 BY WRM				
1	LS, 5	0-3	GR/CL	FR/SEXP/SS/SP	>46" TO SOIL WETNESS	46	N/A	NONE	PS, IV .3GPD/FT^2
		3-44	SBK/C	FI/SEXP/S/P					
		44-46	SBK/CL	FR/SEXP/SS/SP					
2	"	0-5	GR/CL	"	>49" TO SOIL WETNESS	49	"	"	"
		5-37	SBK/C	FI/SEXP/S/P					
		37-50	SBK/CL	FR/SEXP/SS/SP					
					OFFSITE LTAR .3GPD/FT^2				

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)		
Site LTAR		

Other Factors (.1946):
Soil Evaluation By: W. R. Marlin, LSS, 4/13/2007,
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

COMMENTS:
100% repair

Landscape Position	Group	Texture	.1955 LTAR
R-Ridge	I	S-Sand	1.2 - 0.8
SS-Shoulder Slope		LS-Loamy Sand	
LS-Linear Slope			
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6
NS-Nose Slope		L-Loam	
HS-Head Slope			
CC-Concave Slope	III	SI-Silt	0.6 - 0.3
CV-Convex Slope		SICL-Silty Clay Loam	
T-Terrace			
FP-Flood Plain		CL-Clay Loam	
		SCL-Sandy Clay Loam	
	IV	SC-Sandy Clay	0.4 - 0.1
		SIC-Silty Clay	
		C-Clay	

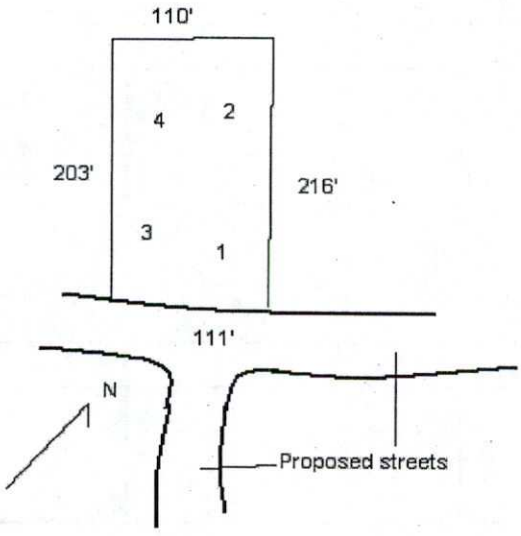
Structure
SG-Single Grain
M-Massive
CR-Crumb
GR-Granular
SBK-Subangular Blocky
ABK-Angular Blocky
PL-Platy
PR-Prismatic

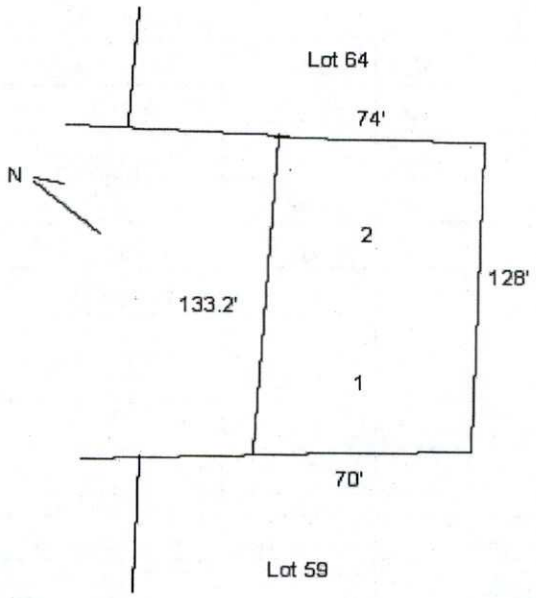
Consistence Moist
VFR-Very Friable
FR-Friable
FI-Firm
VFI-Very Firm
EFI-Extremely Firm

Consistence Wet
NS-Non-Sticky
SS-Slightly Sticky
S-Sticky
VS-Very Sticky
NP-Non-Plastic
SP-Slightly Plastic
P-Plastic
VP-Very Plastic

Mineralogy
SEXP-Slightly Expansive
EXP-Expansive

Sketch of Soil Evaluation Locations



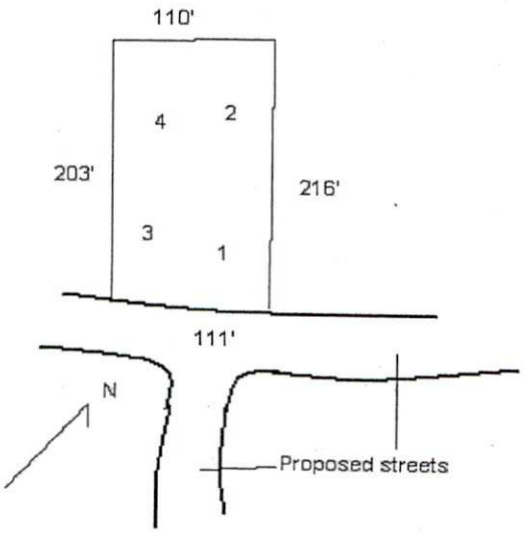


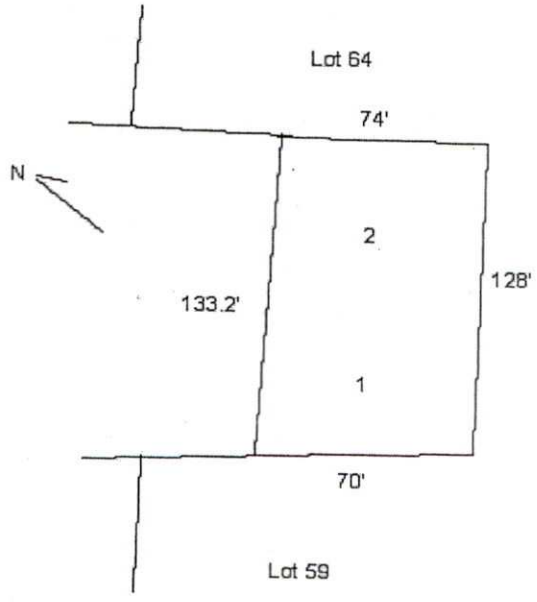
COMMENTS:
100% repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations





ROAD NAME Latta Plantation Circle & Tulipfera Ln SUBDIVISION The Retreat at Latta Plantation
NEAREST INTERSECTION Latta Plantation Circle, Silky Dogwood Dr, Tulipfera Ln (see attached plans)

TOWN OF HUNTERSVILLE

-AND-

Faison – Sample Road, LLC

RIGHT OF WAY ENCROACHMENT AGREEMENT FOR ALL ENCROACHMENTS ON TOWN MAINTAINED ROADWAYS

THIS AGREEMENT, made and entered into this the 2nd day of October , 2007 , by and between the Town of Huntersville Engineering & Public Works, party of the first part; and Faison – Sample Road, LLC party of the second part,

WITNESSETH

THAT WHEREAS the party of the second part desires to encroach on the right of way of the public road designated as Latta Plantation Circle & Tulipfera Lane , located with the following:

PROJECT DESCRIPTION Private Septic Supply Lines

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the part of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment with in the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities, that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Town Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

It is clearly understood by the party of the second part that the party of the first part will assume no responsibility for any damage that may be caused to such facilities, within the highway rights of way limits, in carrying out its construction and maintenance operations.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Town Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Town Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Town Engineer of the party of the first part.

That the party of the second part agrees to have available at the encroaching site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Town Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

TOWN OF HUNTERSVILLE

BY: _____
Public Works Director

ATTEST OR WITNESS:

Mary Y Cox

_____

_____

Faison - Sample Road, LLC

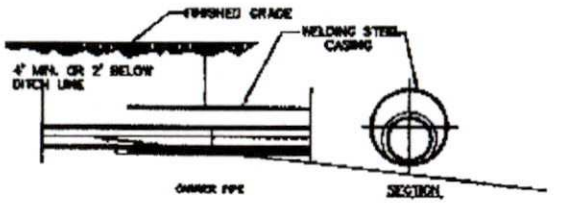
_____

_____
Second Party

*Where applicable, please attach plans or drawings describing the desired encroachment.

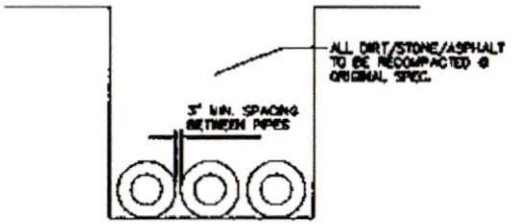
GENERAL DEH REQUIREMENTS FOR INDIVIDUAL SEPTIC SUPPLY LINES

1. ALL MATERIAL SHALL BE 2 1/2" OR 3" SCH 40 PVC. ANY VARIATION OF THIS MUST BE APPROVED IN WRITING BY THE MECKLENBURG COUNTY HEALTH DEPARTMENT (MCHD).
2. THERE MUST BE A 10' SEPARATION IF SEPTIC SUPPLY LINES AND WATER LINES RUN PARALLEL TO EACH OTHER. SEPTIC SUPPLY LINES MAY CROSS WATER LINE AT PERPENDICULAR ANGLES, WITH SEPTIC SUPPLY LINES AT LEAST 18" BELOW WATER LINE. THE SEPTIC SUPPLY LINES MUST BE AT LEAST 50' FROM ANY WELL.
3. AT STREET AND OTHER DRIVEWAY CROSSINGS SEPTIC SUPPLY LINES WILL BE AT LEAST 60" DEEP. AT THIS DEPTH, METAL SLEEVES ARE NOT REQUIRED BY DEH BUT WE UNDERSTAND HUNTERSVILLE WILL REQUIRE METAL SLEEVES WITH 0.250" WALL THICKNESS. ALL ROAD CROSSINGS SHALL BE APPROVED BY HUNTERSVILLE AND INSTALLED ACCORDING TO THEIR SPECIFICATIONS.
4. IN TRENCHES WHERE THERE ARE MULTIPLE PIPE RUNS, COLOR CODE (SPRAY PAINT) THE PIPE AND RISER BOTH INSIDE AND OUT WITH THE SAME COLOR. AN "AS-BUILT" DRAWING WITH LOCATION AND COLORS MUST BE SUPPLIED WHEN TESTING. PIPES SHOULD NOT CROSS IN DITCH, EXCEPT WHERE NECESSARY TO TURN PIPE UP ON LOT OR SEPTIC AREA. ALSO, PLACE WARNING TAPE & LOCATOR WIRE ABOVE PIPE.
5. WHERE SEPTIC SUPPLY LINES MUST CROSS STORM DRAINS, THERE MUST BE A 12" MINIMUM SEPARATION. IF SUPPLY LINES RUN PARALLEL TO STORM DRAINS, THERE MUST BE AT LEAST 5' OF SEPARATION.
6. AFTER LINES ARE INSTALLED AND MARKED, THEY SHOULD BE CAPPED ON BOTH ENDS TO KEEP OUT WATER AND OTHER DEBRIS. WATER COULD FREEZE AND DAMAGE PIPES. DEBRIS IN PIPE COULD FOUL SEPTIC MANIFOLD AND DISTRIBUTION SYSTEMS.
7. PIPES MUST BE PRESSURE TESTED TO 80 PSI FOR 2 HOURS. ARRANGE TEST TWO DAYS IN ADVANCE WITH SANE AND THE MCHD.
8. ALL RISERS SHOULD BE 10' OFF PROPERTY LINES AND 10' BEHIND FRONT CORNERS TO REDUCE CHANCE OF DAMAGE.

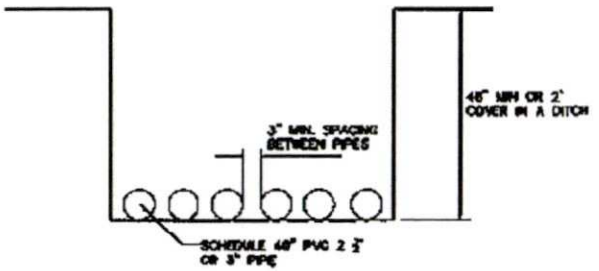


CARRIER PIPE	CASING PIPE SIZE AND WALL THICKNESS
2" OR 3"	12" X 0.250" OR 6" X 0.280"

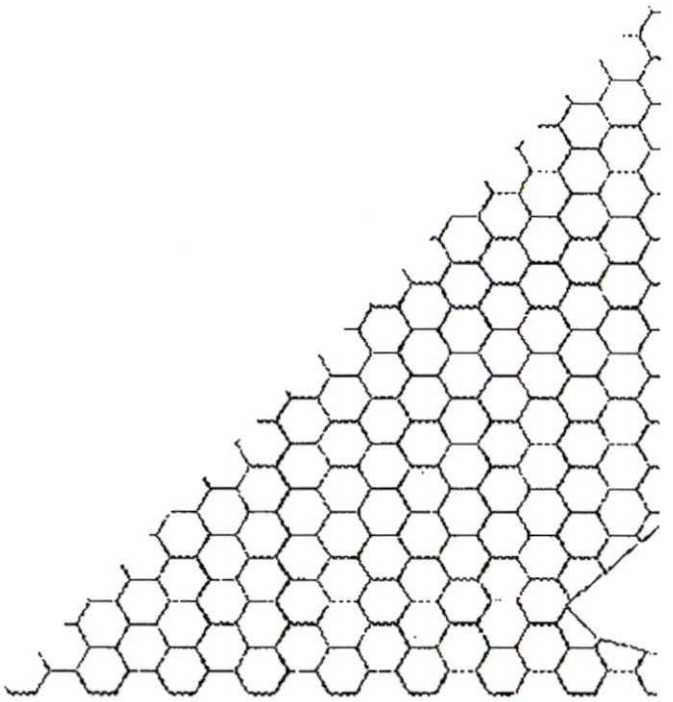
ENCASEMENT PIPE DETAIL



TYPICAL ROAD DETAIL



TYPICAL COMMON OPEN SPACE



Tom Brasse@Charlotte

From: Kevin Fox [kfox@huntersville.org]
Sent: Wednesday, October 10, 2007 4:55 PM
To: Tom Brasse@Charlotte
Cc: brobinson@turnbullsigmon.com; Justin Carroll
Subject: RE: Private low-pressure sewer crossings

Mr. Brasse,

Upon your request, you may use slip joint ductile iron encasement pipe in lieu of the welded steel pipe as indicated on the Encasement Detail for the low pressure sewer crossings at the Retreat at Latta. This change is being made due to the fact that ductile iron will provide adequate strength for the crossing as well as provide water tight seals at the joints. Please note however, this is the only change being made to that detail. Specified lengths, depths, and sizes shall still be in compliance with the detail.

Should you have any questions, or need additional information, please advise.

M. Kevin Fox, P.E.
Public Works Operations Manager
Town of Huntersville
Phone: 704.875.7007

From: Tom Brasse@Charlotte [mailto:Tom.Brasse@faison.com]
Sent: Friday, October 05, 2007 11:03 AM
To: Kevin Fox
Subject: RE: Private low-pressure sewer crossings

Mr. Fox-
Retreat at Latta specifically. I know NCDOT is much more reasonable, so I was wondering if we could do something a little less than welded steel pipe that may actually last longer. Welded Steel piping painted is $150K more than ductile iron with slip joints and tracer wires, and I cannot imagine there is a structural difference to the roadway. I would really like some help with that if you can.

I actually had a second question too. I spoke with Barry Moose, Philip Moxley, Louis Mitchell and Marc Morgan at NCDOT today, and they wanted to know if Huntersville would be willing to take Sample Road over. I did not know if this was in your long range plan now or not, but could you give me you opinion?
Thanks,
Tom

From: Kevin Fox [mailto:kfox@huntersville.org]
Sent: Friday, October 05, 2007 10:13 AM
To: Tom Brasse@Charlotte
Subject: RE: Private low-pressure sewer crossings

Mr. Brasse,

To which project are you referring?

M. Kevin Fox, P.E.
Public Works Operations Manager
Town of Huntersville
Phone: 704.875.7007

From: Tom Brasse@Charlotte [mailto:Tom.Brasse@faison.com]

Sent: Monday, October 01, 2007 5:37 PM
To: Kevin Fox
Subject: Private low-pressure sewer crossings

Mr. Fox-
I was wondering if there is an alternate to the standard crossing detail or if we could propose an alternate to the welded steel pipe required by Huntersville. This is an extremely expensive option, and we would like to propose using ductile iron pipe with slip joints and different color tracer wires. We would still as-built everything the same, but the cost savings is tremendous, and the different color tracer wires would last longer than paint. Can you approve or is there someone else I'd need to go through?
Thanks,
Tom

Thomas W. Brasse, P.G.
Faison & Associates
121 West Trade St, 27th Floor
Charlotte NC 28202
704/972-2673
704/309-1937 (Mobile#)
150*21*43489 (Nextel)
704/972-2676 (Fax #)

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Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 2
Property ID: PO 023-201-02
Lot #: 27
File #: 6765B
AppID: 1382

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Sample Road LLC
Applicant: S & ME- T. Jacobs
Address: 121 W. Trade St., 27th Floor, Charlotte, N. C. 28202-5399
Date Evaluated: 4/12/07
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .53a
Location of Site: Off Sample Road
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-3	GR/SCL	FR/SEXP/SS/SP	>10" TO SOIL WETNESS	10+	N/A	NONE	US
		3-10	SBK/ABK/C	VFI/EXP/VS/VP					
2	"	0-3	GR/CL	FR/SEXP/SS/SP	>12" TO SOIL WETNESS	12+	"	"	"
		3-12	SBK/ABK/C	VFI/EXP/VS/VP					
3	"	0-3	GR/SCL	FR/SEXP/SS/SP	>10" TO SOIL WETNESS	10+	"	"	"
		3-10	SBK/ABK/C	VFI/EXP/VS/VP					
4	"	0-3	GR/SCL	FR/SEXP/SS/SP	>7" TO SOIL WETNESS	7+	"	"	"
		3-7	SBK/ABK/C	VFI/EXP/VS/VP					
					NO LTAR ASSIGNED				
				OFFSITE AREA INV.	6/12/07 BY WRM	W BM			
1	LS, 5	0-3	GR/CL	FR/SEXP/SS/SP	>46" TO SOIL WETNESS	46	N/A	NONE	PS, IV
		3-44	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
		44-46	SBK/CL	FR/SEXP/SS/SP					
2	"	0-5	GR/CL	"	>49" TO SOIL WETNESS	49	"	"	"
		5-37	SBK/C	FI/SEXP/S/P					
		37-50	SBK/CL	FR/SEXP/SS/SP					
					OFFSITE LTAR .3GPD/FT^2				

Description	Initial System	Repair System
Available Space (.1945)	P.S.	P.S.
System Type(s)	IVa	IVa
Site LTAR	0.3	0.3

Other Factors (.1946):
Soil Evaluation By: W. R. Marlin, LSS, 4/13/2007, W R M
Others Present:
Site Classification (.1948): P.S.
Site Evaluation By:
Others Present:

COMMENTS:
100% repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
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CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
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	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations

