ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-12448

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4626-18-7403

APPLICANT / OWNER: SOIL AND FORESTRY SERVICES | APPLICANT ADDRESS: 126 3rd Creek Rd, Statesville, NC 28677

SITE ADDRESS: 139 BAYBERRY CREEK CIR, MOORESVILLE, NC 28117 | PHONE: (980) 223-8352 | ALT. PHONE:

SITE DIRECTIONS: Brawley School Rd to McKendree Rd to Bayberry Creek. | SAP CONTROLLED: YES ☐ NO ☒

SUBDIVISION: The Farms. | SECTION: PS MB | LOT #: 4/4/ | LOT AREA: 1.781 | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank: (gal) 1500	STB: Infiltrator	Date:	☒ New System ☐ Repair ☐ Expansion	System Type: IIZ	☒ Residence	No. Bedrooms: 4	Water Supply: Municipal Water
Pump Tank: (gal) EXT	PT: EXT	Date: EXT	System Description: 50% Reductin PPBPS		☐ Business	No. Persons: 8	
Pump Make: EXT	Model: EXT	Serial #: EXT	Repair System Description: PPBPS - 50% Reductin		☐ Other	No. Employees: 0	
# Nitrification Fields: 1	# Lines: 1	Linear Ft.: 54	Maintenance Agreement Required: ☒ YES ☐ NO		☐ Slab	☒ Crawl Space	
Trench Width: 24in	Trench Bottom Depth (Low side): 30in		Gravel Depth: -	☐ GRAVITY ☒ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to G.S. 130A-335(a2), (a3) & (a4) using the signed and sealed LSS/LG Evaluation attached here, from:

Soil & Forestry Services of the Carolinas PA

LSS# 1231

AS BUILT SKETCH

Installed as Drawn

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION

☐ IMPROVEMENT PERMIT with plat valid without expiration. ☒ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☒ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

Owner / Applicant Signature: _____ Date: _____ Installed By: BOSS

IMPROVEMENT PERMIT by: Benjamin A Botts Date: 1-17-2023 OPERATION PERMIT by: Cory Hill Date: 2/28/23

AUTHORIZATION TO CONSTRUCT by: Benjamin A Botts Date: 1-17-2023 Existing System Inspected By: _____ Date: _____

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 BETWEEN 8am-9am the day the inspection is needed.

DigiSign Verified: 0E350B46-982E-494F-A3AB-5E4A956BCD4A

ON SITE SEWAGE TREATMENT CONTRACT AND AGREEMENT

STATE OF NORTH CAROLINA
COUNTY OF IREDELL

CONTRACT FOR INSPECTION AND MAINTENANCE GROUND ABSORPTION SEWAGE TREATMENT AND DISPOSAL SYSTEM LOT NUMBER 441, PHASE 3 ('THE LOT') THE FARMS

(I), (WE), as the owners of Lot(s) Number 441, Phase 3 of the subdivision known as The Farms, have certain duties and responsibilities for the maintenance of any ground absorption sewage treatment and disposal system as regulated and set out in N.C.G.S. Article II, Chapter 130A; T15A-C18-S18A.1961 "Maintenance of Sewage Systems"; and under the "Declaration of Covenants, Conditions and Restrictions-The Farms", (the "Declaration") as recorded in the Register of Deeds of Iredell County, North Carolina, in Book 1479, Page 745 et seq., and under the Bylaws of The Farms Owners Association, Inc.

The Farms Owners Association, Inc. ("The Association") in order to provide for uniform inspection, maintenance, and repair and operation of sewage treatment and disposal systems within The Farns, has entered into a Master Agreement dated the 1st day of May, 2007, which Master Contract with Tri-County Wastewater Management, Inc., a memorandum of which is recorded in Deed Book #1864, Pages 702-708 in the office of the Register of Deeds for Iredell County, North Carolina and is incorporated fully by this reference thereto.

The undersigned lot(s) owner(s) hereby agrees and contracts with Tri-County Wastewater Management, Inc. and with The Farms Owners Association, Inc. as follows:

1. The Master Contract referred to above is hereby accepted, agreed, and is binding upon the undersigned with Tri-County Wastewater Management, Inc. and it's successors and assigns. The undersigned lot owner(s), their successors, and assigned agree to be bound by this Master Contract and any further or future contracts in substitution thereof.

2. The undersigned lot owner(s) further acknowledge and agree that The Farms Owners Association, Inc. acting by and under it's Declaration of Covenants, Conditions, and Restrictions-The Farms, has recorded in Book 1479 at Page 745 et seq. in the office of the Register of Deeds for Iredell County, North Carolina has and is hereby granted the full power and authority to assess the undersigned for fees, expenses, and costs associated with the inspection, maintenance, and or repair of septic disposal systems on the lot.

This agreement is binding upon the undersigned, their heirs, administrators, personal representatives, successors, and assigns, and the transfer and assignment of the duty and responsibility to contract with a qualified maintenance contractor (operator) is a covenant running with the land ("The Lot"). This agreement will terminate: (1) when The Association is dissolved or liquidated; or (2) when the undersigned has no legal duty to maintain a sewage disposal system on "The Lot", or (3) when the Master Contract referred to above has been cancelled or terminated.

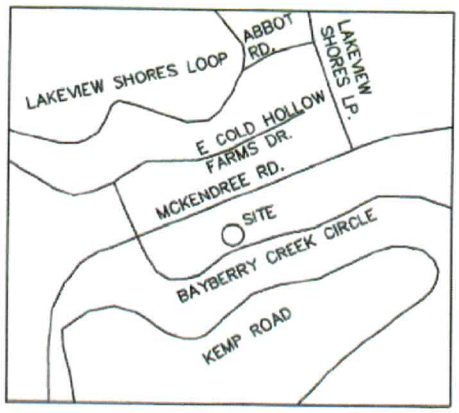
Witness our hands and legal seals, this 28 day of February, 2023.

Kasey Daley (SEAL)
Signature

Kasey Daley
Owners Printed Name

(SEAL)
Signature

Owners Printed Name



C.O.S.
FARMS POA INC.
1710/154

SPLIT-RAIL FENCE ENCROACHES UP TO 0.89'

EIP 0.34'

L1 CP L2 CP L3 CP L4 EIP

SPLIT-RAIL FENCE

1 B 114' 4.7
2 B4 114' 4.5 B5
3 O 92' 4.0 Install 54'
50' REAR
4 R 90' 3.5 Existing
5 Y 90' 3.6 Existing
6 B 33' 3.6 Existing
7 O 33' 4.1
8 P 32' 4.5
66' Blue Abandoned
CVB

ALUMINUM FENCE (NEIGHBOR'S)

PB.47 PG.12

264.89' TOTAL

S25°10'54"E (BASE BEARING)

LOT 442
AMY AND HARRY S. MARSHALL JR.
2620/564

NEIGHBOR SPLIT-RAIL FENCE TIE-IN

POOL AREA
37'
17'
19'
ABANDON EXISTING ST
SEPTIC
20'
11.7'

CONC PORCH

SPLIT-RAIL FENCE

32.8'

2 STORY FRAME & STONE COMP. ROOF

31.8'

CONC DRIVE

COV. PORCH

20' SIDE

248.87'

N26°12'28"W

CONC WALK

50' FRONT B2

72.2' B1

LOT 441
(0.78 AC.)

C1

EIP

R/W

LOT 440
SCOTT T. HIRSCH
1865/2161

N54°34'25"E
138.10'
(TIE ONLY)

BAYBERRY CREEK CIRCLE
(50' PUBLIC R/W)

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 68°05'48" E	8.84'
L2	N 67°27'17" E	50.31'
L3	N 68°02'14" E	49.64'
L4	N 67°44'04" E	26.92'

LEGEND

E.I.P. = EXISTING IRON FOUND
I.P.S. = #4 REBAR SET
R/W = RIGHT-OF-WAY
CP = COMPUTED POINT
Ⓢ = SEPTIC LID

CURVE TABLE				
CURVE	RADIUS	LENGTH	BEARING	CHORD
C1	1025.00'	131.19'	S 60°53'02" W	131.10'

0' 25' 50' 100'
SCALE IN FEET

NOTES

1) THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHTS OF WAY OF RECORD.
2) ACREAGE COMPUTED BY THE COORDINATE METHOD.
3) UNDERGROUND POWER
4) NO GRID MONUMENT FOUND WITHIN 2000 FEET.
5) SETBACKS SHOWN PER PLAT (PB.47 PG.12)

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 1/10/2023 (Date) by BB (Initials)

Permit Number: OSWP-2022-12448

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A Box Date of Issuance: 1/17/2023

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 1/17/2028

See attached site sketch

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 1/10/2023 (Date) by BB (Initials)

Permit Number: OSWP-2022-12448

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A. Batts Date of Issuance: 1-17-2023

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: 1-17-2024.

See attached site sketch

County: Iredell

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4626187403

Issued To: Kasey Daley

Property Location: 139 Bayberry creek circle Mooresville NC 28117

Subdivision: Farms Lot #: 441 Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Samuel Ashley Rollans #1731

New ☐ Repair ☐ Expansion ☐ System Relocation ☒

Proposed Structure: Pool/Pool house

Proposed Wastewater System Type: Mod PPBPS (Initial) Mod PPBPS (Repair)

Fill System: ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3

Design Wastewater Strength: ☒ domestic ☐ high strength ☐ industrial process

Number of bedrooms: 4 Number of Occupants: 8 Other: _____

Pump Required: ☒ Yes ☐ No ☐ May be required based upon final location and elevations of facilities

Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____

Type of Water Supply: ☐ Private well ☐ Public well ☒ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .1945: Yes ☒ No ☐

Drainfield location meets requirements of Rule .1950: Yes ☒ No ☐

Permit valid for: ☑ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: Samuel Ashley Rollans

Licensed Soil Scientist Signature: Samuel A Rollans Date: 12/22/22

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4662687403

Issued To: Kasey Daley

Property Location: 139 Bayberry creek Circle Mooresville NC 28117

AOWE/PE Plans/Evaluations Provided: Yes ☒ No ☐ If yes, name and license number of AOWE/PE: Samuel Ashley Rollins 10027E

Facility Type: Pool

☐ New ☐ Expansion ☐ Repair System Relocation ☒

Basement? ☐ Yes ☒ No Basement Fixtures? ☐ Yes ☒ No

Type of Wastewater System** PPBPS (Initial) PPBPS (Repair)

Design Daily Flow: 480 GPD Wastewater Strength: ☒ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☒ No

Installation Requirements/Conditions

Septic Tank Size: 1500 gallons Total Trench/Bed Length: 261 feet Trench/Bed Spacing: 8 feet on center

Drainfield square footage: 534 Trench/Bed Width: 24 inches LTAR: 0.3 gpd/ft²

Soil Cover: 6 inches Slope Adjusted Maximum Trench/Bed Depth: 30 inches

Aggregate Depth: N/A inches above pipe N/A inches below pipe N/A inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☐ No

Pump Requirements: 11.31 ft. TDH vs. 25.42 GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☐ Pressure Manifold(s) ☒ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ☒ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: Yes ☐ No ☒

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☐ No

Declaration of Restrictive Covenants: ☐ Yes ☒ No

****If applicable:**
I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: _____

Owner/Legal Representative Signature: _____ Date: _____

Pre-Construction Conference Required: Yes ☐ No ☐

Conditions: Existing septic tank must be abandoned

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Samuel Ashley Rollins

AOWE/PE Signature: Samuel Ashley Rollins Date: 12/22/22

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

SITE WASTEWATER EVALUATOR Certification Number 10027E

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Project#: 22-0151
December 15th, 2022

Kasey Daley
Attn: *Kasey Daley*
Email: kasey.l.daley@gmail.com

RE: Soil & Site Evaluation for modification of an existing 4 Bedroom PPBPS system with Low Pressure Distribution to accommodate a pool at 139 Bayberry Creek Circle, 0.781 ac Parcel, PIN# 4626187403, Mooresville, NC 28117, Iredell County, NC.

Kasey:

At your request Soil & Forestry Services of the Carolinas (S&FS) has performed soil/site evaluations on parcel noted above. The Lot size is noted on the attached survey map & soil evaluation form. The purpose of our work was to identify soil areas with potential to support & relocate a portion of a PPBPS wastewater disposal system and provide design details for Session Law submittals to Iredell County Health Department.

Site Conditions

At the time of our evaluation land cover on the property was mostly cleared/open on the property. Topography within the evaluated area was gentle slope near the house site with gentle percentage of slope in the proposed drainfield area. Property lines and corners were marked at the time of the evaluation by Don Allen & Associate Surveyors. The Surveyor provided an Autocad File of the survey as a basemap. The proposed/existing septic was located via survey, GPS and tape measures which were used to produce the attached *Site Plan*. The pool and pool house was pinned in the field during our evaluation.

Methodology

We evaluated soil areas through the use of auger borings. Soil morphological conditions including color, texture, structure, etc. were reviewed in the field with five auger boring locations on the property flagged and located via GPS. Three auger borings are located in or adjacent to the proposed septic layout. Soil suitability was determined by referencing 15A NCAC 18A.1900 "Laws and Rules for Sewage Treatment and Disposal Systems". *Soil & Site Evaluation Forms* were utilized to record the soil morphological data for each boring. The pool envelope was located via tape measure. An on-ground layout of system and repair was performed using a laser level. Pin flag locations of the layout were also located by survey, GPS and tape measure. Detailed system & repair information is summarized in the following paragraph for this Lot.

139 Bayberry Creek Circle. PIN #4626187403 *(See Attached Design)*
The septic layout for this lot (8' centers) yielded a total of 598 linear feet of line. The primary system is proposed as 267' of Modified Conventional (50% Reduction) drainfield with low pressure distribution. Max Trench depth (LOW SIDE) is specified at 30 inches. The repair system is proposed as 267' of Modified Conventional (50% Reduction) drainfield with low pressure distribution. Max Trench depth (LOW SIDE) is specified at 30 inches. There is 331 linear feet available for repair.

Session Law Requirements

All information needed to issue the IP must be submitted with the application. The application shall include all information described in 15A NCAC 18A .1937(d) and be accompanied by a signed and dated statement from the applicant (owner or owner's legal representative) that reads as follows:

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

Owner

Date

Print Name Kasey Daley

Signature

12/28/22

The LSS evaluation shall include a statement bearing the LSS seal and signature that reads as follows:

"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."

Disclaimer

This report reflects the findings of S&FS, PA. *This LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."* Any site modifications that impact the proposed septic areas on the site may nullify this design for 139 Bayberry Creek Circle. System design requirements and site requirements shall be adhered to for installation and Operations Permits to be issued by the local Health Department. If you have questions regarding these requirements a Pre-Construction meeting should be scheduled to discuss. Please contact S&FS if you have any questions regarding this report or the attached information. S&FS also offers septic system inspection, wetland delineation and forestry services.

Sincerely,

LICENSED SOIL SCIENTIST
SAMUEL A. ROLLANS
1231
STATE OF NORTH CAROLINA

S. Ashley Rollans, LSS
Attachment: *Septic Design*

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for a PPBPS Septic System w/Low Pressure distribution for a 4 bedroom single family residence on 139 Bayberry Creek Circle Farms Subdivision Lot # 441, (PIN# 4626187403), Mooresville NC, 28117.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
System Tapsheet	5
Site Plan/System Plan	6
Calculations	7
Profile Descriptions	8-9
Septic Application	ONLINE
Zoning Permit & Receipt	ONLINE
Agent Authorization	ONLINE
Improvements Permit Form	10
Authorization to Construct Form	11



December 15, 2022
Project #: 22-0151
Design By: Soil & Forestry Services of the Carolinas, PA

INFORMATION FOR THE INSTALLER:

The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.

- Tanks shall be approved by NC DHHS, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a PPBPS installation with low pressure distribution.
- Repair is specified as a PPBPS installation with low pressure distribution.
- Backfill 4 - 6" of material (County Approved) over panels, rake trench walls, lime side-walls, install trenches 24" wide and have no more than 1/4" fall in 10 feet.
- **Existing Septic Tank must be abandoned.**
- **New Septic Tank must be 1,500 gallons.**
- **Future Pool must be minimun 15ft from and pool house 5ft from septic.**

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	Kasey Daley
Current Address:	139 Bayberry creek Circle Mooreesville, NC 28117
Phone:	314-852-6473
County:	Iredell
Location:	139 Bayberry Creek Circle Mooresville, NC 28117
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480 gpd
System Flow:	25.42gpm

Design Specifications

Drainfield Size:	267
Loading Rate (gpd/ft.^{2}):	0.3
Depth of Gravel in Trench:	NA (PPBPS)
Gravel Size:	NA (PPBPS)
Trench Depth (LOW SIDE):	30 in., Repair 30 in. Trench Depth
Trench Width:	24 in.
Septic Tank Size:	1500
Pump Tank Size (Existing):	1000
Estimated Supply Line Length:	66
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	11.48
Dosing Volume:	223.20
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:	0.84
Elevation Head:	7.00
Total Dynamic Head:	11.31
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 Soil & Forestry Services of the Carolinas, PA

139 Bayberry Creek Circle

LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	534
TOTAL LATERAL LENGTH:	267
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	266.6666667
SUPPLY LINE LENGTH:	66
TOTAL DYNAMIC HEAD:	11.31
MANIFOLD SIZE:	N/A
DOSING VOLUME:	223.20
PUMP TANK DRAW DOWN*:	10.6
SEPTIC TANK SIZE:	1500
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.*

139 Bayberry Creek Circle

Project #: 22-0151

LAYOUT FOR 4 BEDROOM HOME

December 15, 2022

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		5.1	105.1		100.00		
INSTR. 1							
HOUSE CNR	(RIGHT REAR)			5.10	100.00		
P. TANK				5.60	99.50		
1	BLUE			4.70	100.40	114	114
2	YELLOW			4.50	100.60	114	114
3	***ORANGE***			***4.00***	101.10	***92***	***54***
4	***RED***	***Existing***		***3.50***	101.60	***90***	***90***
5	***YELLOW***	***Existing***		***3.60***	101.50	***90***	***90***
6	***BLUE***	Existing		***3.60***	101.50	***90***	***33***
7	ORANGE			4.10	101.00	33	33
8	PINK			4.50	100.60	32	32
					Total	**655**	**560**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
** System*	*267*	*0.300*	*MOD.*	*0.300*	*PPBPS*	LOW PRESSURE
Repair	*331*	*0.300*	*MOD.*	*0.300*	*PPBPS*	LOW PRESSURE

Notes:

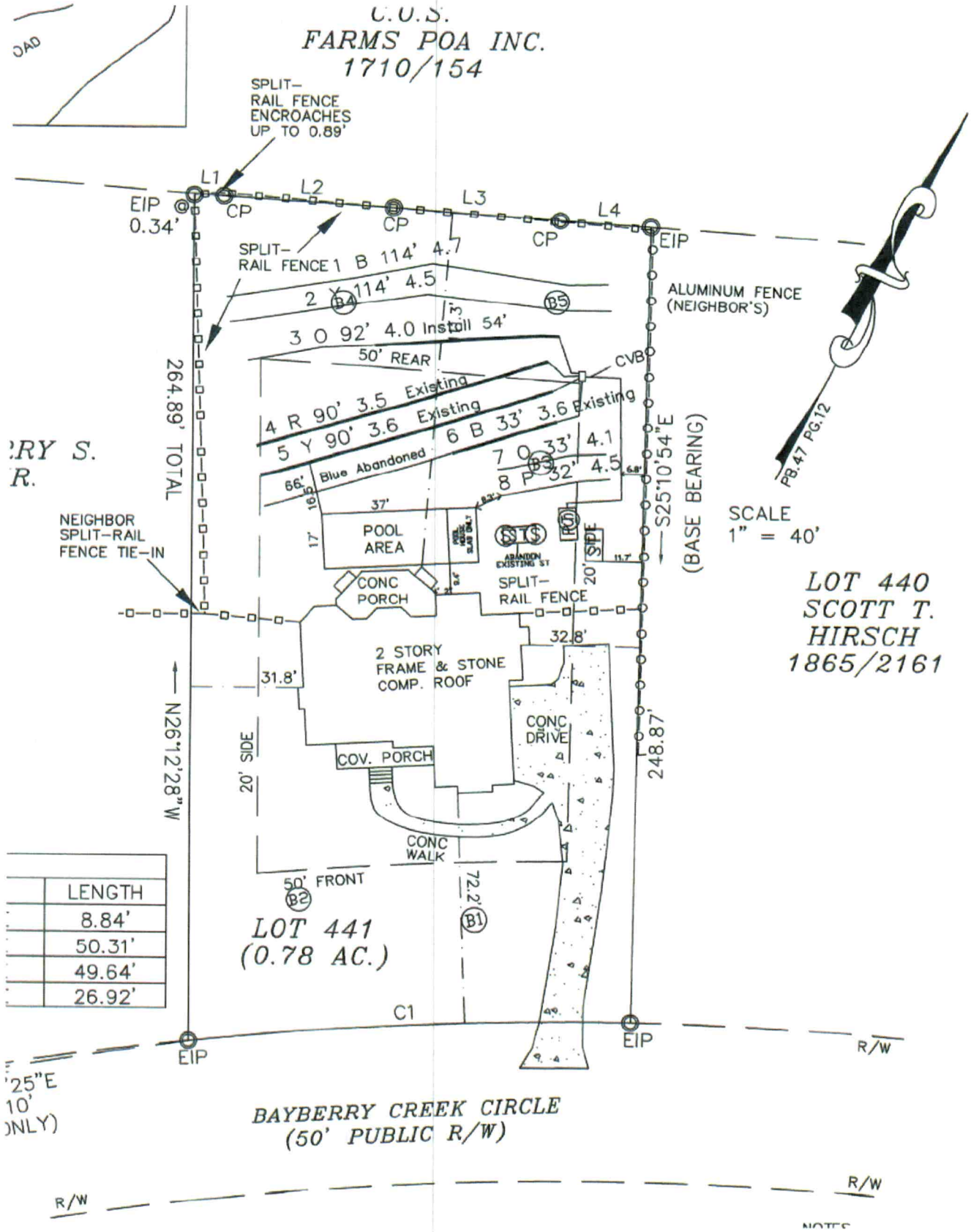
****All septic lines and borings located via Survey and/or GPS**
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags

LP PPBPS TAPSHEET -139 Bayberry Creek Circle

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
3	ORANGE	101.10	54	0.156	0.41	108	12
4	RED	101.60	90	0.156	0.41	180	21
5	YELLOW	101.50	90	0.156	0.41	180	21
6	BLUE	101.50	33	0.156	0.41	66	8
	total	feet =	267	gal/min =	25.42		62
			Des. Flow	480			
			Pump Run=	8.78			
			soil LTAR	0.3			
			LTAR +5%	0.315			
			LTAR with mod.	0.6			
			LTAR with mod.. + 5%	0.63			

.156 equals 5/32 inch hole



	LENGTH
	8.84'
	50.31'
	49.64'
	26.92'

NOTES

CALCULATIONS

Location	139 Bayberry Creek Circle Mooresville, NC 28117	
Project Number	22-0151	
Lot No:	441	
No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.3	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	66	ft.
Supply Line Volume	11.484	gal.
Required Feet of Line	266.6667	ft.
Amount of Line from Layout	267	ft.
Gallons per Minute	25.42	$^{gal}/_{min}$
Required Septic Tank Capacity	1500	gal.
Pump Tank Capacity (Existing)	1000	gal.
Panel Volume	3.6	gal.
# of Panels	62	
Dosing Volume	223.20	gal.

Note: Dosing Volume based on 100% of # of panels times 3.6 gal/panel

Tank Draw Down	10.6	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	8.78	minutes
Elevation Head	7	ft.
Pressure Head	2	ft.
Friction Factor	1.27	ft./100 ft. *(From the interpolater.)*
Friction Head	0.84	ft.
Total Dynamic Head (+15%)	11.31	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

Sheet 1 of 1
PROPERTY ID #: 4626187903
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Kaser, Daley
ADDRESS: 139 Bayberry Creek Circle, Mooresville NC 28117
PROPOSED FACILITY: 4BR
LOCATION OF SITE: 139 Bayberry Creek Circle, Mooresville NC 28117
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☒ Other Community
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut

APPLICATION DATE
DATE EVALUATED: 6/30/22
PROPOSED DESIGN FLOW (.1949): 480gpd
PROPERTY SIZE: 0.781
PROPERTY RECORDED: Yes
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	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 1	L/15%	0-12	FILL/DISTURBED SOIL			60	–	–	PS > 12" 0.3
		12-50	Rcwmsbk/blk	FrSSSPSExP	- FWR/(10YR 6/1 low)				
		50-60	RBc/wfsbk	" " "	- fsap				
B 2	L/11%	0-5	FILL/DISTURBED			60	–	–	PS > 5 0.3
		5-10	RBc/wfsbk	FrSSSPSExP					
		10-50	Rc wmsbk/blk	" " "					
		50-60	RBc/wfsbk	" " "	- Csap				
B 3	L/8%	0-5	Bs/sr	FrSSSPSExP		52	–	–	PS 0.3+
		5-25	BRcwmsbk/blk	" " "	- fsap/WR				
		25-52	RBc/wfsbk	" " "	- fcsap				
B 4	L/10%	0-7	Bs/sr	FrSSSPSExP		50	–	–	PS 0.3+
		7-22	BRcwmsbk/blk	" " "					
		22-50	RBc/wfsbk	" " "	- csap				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	PPBPS/Low Pressure	PPBPS/Low Pressure
Site LTAR	0.3	0.3

COMMENTS:

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS

EVALUATED BY: S. Ashley Rollans
OTHER(S) PRESENT: Chad Wagner, Mason Freeman

LICENSED SOIL SCIENTIST SAMUEL A. ROLLANS 1231 STATE OF NORTH CAROLINA

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

PROPERTY ID #: Same
DATE OF EVALUATION: 9/30/22
COUNTY: Iredell

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
5		0-4	BA sr	FrSSS/SPV					PS
B	4/7%	4-10	RBsc wf-mk	" " " "		50	—	—	0.3
		10-27	BRcwfsbk	" " " "					
		27-50	RBclwfsbk	" " " "	f-c sap				
6									0
7									0
8									0
9									0

COMMENTS:

IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

375

IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM INSPECTION

PERMIT# 11967 PIN# ~~4625.50.5104.441~~ 4626-18-7403 DATE 1/3/05

OWNER OR CONTRACTOR THE FARMS LLC / Stonebridge Luxury Homes PHONE: Business _____ Home _____

ADDRESS 3214 BRAWLEY SCHOOL RD MOORESVILLE NC 28115

LOCATION BRAWLEY SCHOOL - TR McKENDREE - ~~TURNKEY~~ - TR BAYBERRY - ON LT

SUBDIVISION THE FARMS BLOCK / SECTION 3 LOT 441 LOT AREA 1.78AC. SITE CLASS. US DESIGN FLOW 480GPD L.T.A.R. .3600 REQ'D

Septic Tank: ~~750~~ 1500 Gallons; STB 578 Date 5/7/04

Pump Tank: 1000 Gallons; PT 17 Date 3/12/04

Pump Make: Goulds Model WE0-312M Serial No. E016620

Nitrification Field: No Fields 1 Square Feet 590 Linear Feet 370

No Lines 3@90' Trench Width 24" Max Trench Bottom Depth 36" Gravel Depth N/A

☑ New System ☐ Repair System Type: I, II, III, IV, V, VI

System Description: C-P PANEL

Repair System Description: SAME

Maintenance Agreement Required: ☑ Yes ☐ No

☐ House/Mod. Home No. Bedrooms 4

☐ Mobile Home No. Bathrooms 4

☐ Business No. Employees ____

☐ Other ____

☐ Slab ☑ Crawl Space ☐ Basement w/plumbing ☐ Basement wo/plumbing

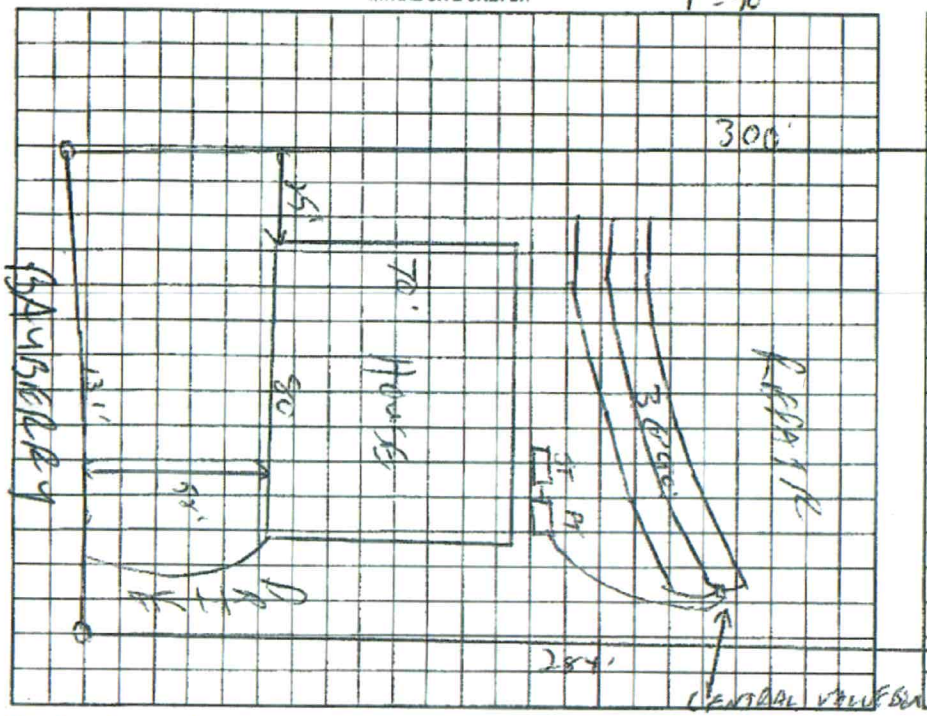
Water Supply: ☐ Individual ☐ Public ☑ Community

Comments/Conditions: DO NOT CUT HOUSE - BACKFILL ONLY

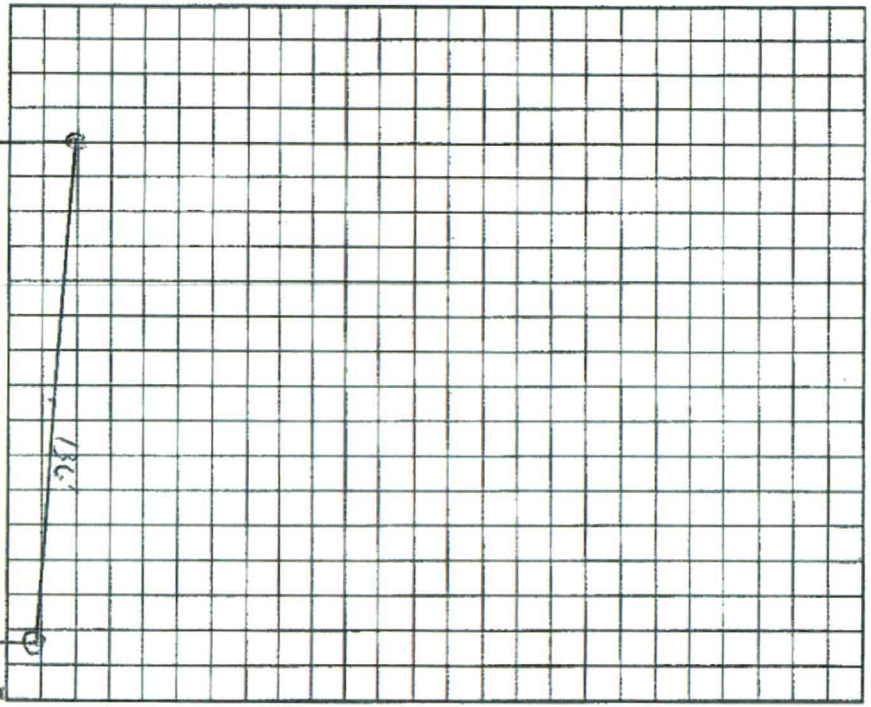
Comments/Conditions: 03 Panels

Need to run electrical wire for 110 instead of 220

INITIAL SITE SKETCH 1"=50'



AS BUILT SKETCH



Permit can be suspended or revoked if any false information is supplied toward securing the permit/any unauthorized changes are made to the site/any unauthorized changes are made in the installation of the system. Improvement Permit with plat valid without expiration. Improvement Permit with site plan valid for sixty months. Authorization to Construct is valid for a period equal to that of Improvement Permit – not to exceed sixty months.

Signed: _____ date 2-24-05 Installed by: Piedmont Backhoe

Improvement Permit by: _____ RS date 1/3/05 Operation Permit by: Wesley Sparks R.S. date 8/22/03

Authorization to Construct by: _____ RS date 10/19/05 Existing System Inspection by: _____ date _____

HEALTH DEPT. COPY: WHITE OWNER COPY (FINAL): YELLOW OWNER COPY (INITIAL): PINK