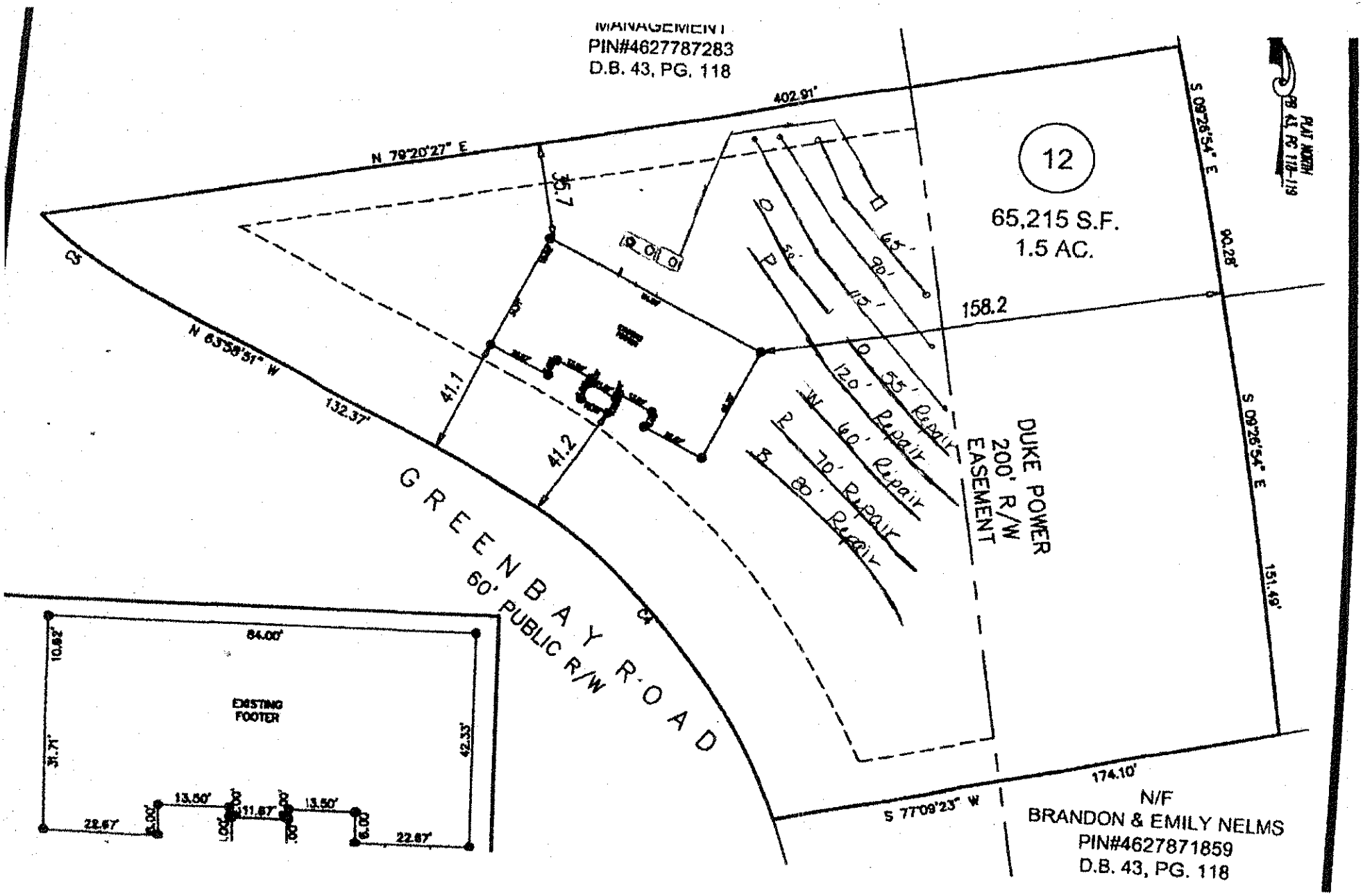


CURRENT
APPROVED NOV 06 2014

Table 1: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elev. (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	installed	LPPPBPS	65 centerfed		15	15	1 per panel	5/32"
2	System	installed	LPPPBPS	90 centerfed		20	20	1 per panel	5/32"
3	System	installed	LPPPBPS	115 centerfed		26	26	1 per panel	5/32"
4	Repair	Orange	LPPPBPS	50 endfed		11	11	1 per panel	5/32"
5	Repair	Orange	LPPPBPS	55					
6	Repair	Pink	LPPPBPS	120					
7	Repair	White	LPPPBPS	60					
8	Repair	Red	LPPPBPS	70					
9	Repair	Blue	LPPPBPS	80					
						Total: 72	Total: 72 (1 in each panel turned up)		
				Total System: 320'					
				Total Repair: 385'					

Tank	Red	1000 gal (2 compartment)	
Pump Tank	Red	1000 gal.	
House	Blue		

Note: **Used existing permit septic lines**

Paid $495.00 New Well
Paid $75 Ltd Relayout
1-17-14 DN

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 1: *APPLICATION FORM*

Application For:

( ) Septic Improvement Permit (X) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(X) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: ( ) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable ( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information:

Applicant Name: Wil Hemm Sam Saunders - Lockridge Homes **Address:** 919-452-0457 **Phone:**

Owner Name: **Address:** Kathleen Saunders, LSS **Phone:** 704-578-4951

Property Information:

Street Address:

Subdivision Name: Greenbay Forrest **Section/Phase:** 1 **Lot Number:** 12

Driving Directions: Hwy 150 W, L Paradise Penninsula, L Greenbay, on Left

Site Development Information: ***(check or complete ALL that apply)***

(X) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 8
( ) Swimming Pool
( ) Other Addition/Structure:

(X) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development:

Type of Business:
Square Footage of Building:
Maximum Number of Employee:
Maximum Number of Seats/Beds/Other:

Water Supply:

(X) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: ***(you may rank in order of preference)*** **Year existing system installed:**

( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other:

Please answer the following to the best of your ability:

( ) Yes (X) No **Does the site contain any jurisdictional wetlands?**
( ) Yes (X) No **Is any non-domestic sewage (i.e. industrial) to be generated?**
( ) Yes (X) No **Is the site subject to approval by any other public agency?**

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

Signature: Kathleen Saunders 1-17-14

Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY HEALTH DEPARTMENT

Environmental Health Division

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

APPLICATION FOR PRIVATE DRINKING WATER WELL PERMIT

Wil Hemm / Sam Saunders - Lockridge Homes		919-452-0457
Applicant Name	**Full Address**	**Phone Number**
Wil Hemm		
Name of Owner / Authorized Agent	**Full Address**	**Phone Number**
	Greenbay Forest	12
Property Street Address	**Subdivision**	**Lot Number**
	SFR	New
Parcel Identification Number (PIN)	**Intended Use of Property**	**Type of Well Permit (New, Repair, Abandonment)**

All site characteristics such as existing or permitted sewage disposal systems, easements or rights of way, existing wells or springs, surface water or designated wetlands, chemical or petroleum storage tanks, landfills, waste storage, known underground contamination and any other characteristics or activities on the property or adjacent properties that could impact groundwater quality or suitability of the site for well construction must be identified on the site plan sketch below.

SITE PLAN SKETCH

See Septic Application

CHECK AS APPLICABLE:

____ There are current or pending restrictions regarding groundwater use as specified in GS 87-88(a)

____ There is a variance regarding well construction or location issued under 15A NCAC 02C .0118.

By signing below I acknowledge that the information provided herein is true, complete and correct. Furthermore, I grant authorized county and state officials right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site investigation can be performed.

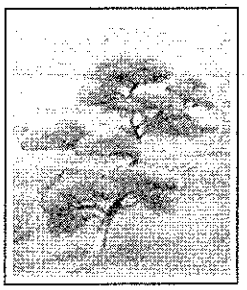
Kathleen Saunders 1-17-14

SIGNATURE OF OWNER OR AUTHORIZED AGENT **DATE**

Health Department Copy - White

Applicant Copy - Yellow

County copy



Date: August 15, 2012

To: Iredell County Environmental Health Department

From: Kathleen Saunders, LSS #1313

RE: Lot 12 Greenbay Forrest Fast Tract Septic Limited Redraw Request

Please accept for submittal the following packet for review under the Fast Track Permitting Program for Iredell County, NC. This packet includes a scaled site plan and system design criteria prepared in conjunction with the Fast Track Program requirements by a Licensed Soil Scientist. It is ultimately the responsibility of the Iredell County Environmental Health Department staff to verify the information contained in this packet prior to issuing a Septic Improvement Permit.

This packet is a redraw of a previously issued permit that is unexpired at this time. The owner would like to request that the distribution of the initial system be changed slightly. The existing LTAR was used, and the initial system previously permitted is in the approximate same location, however the line lengths and distribution are different. The repair area was laid out on site in the same area previously designated as repair area on the existing permit. Please call me at 704-578-4951 with any questions.

KATHLEEN M. SAUNDERS, LSS *Soil / Site Evaluations • Septic Permitting*
227 Grayland Road, Mooresville, NC 28115 • KathleenMSaunders@gmail.com • Mobile: (704) 578-4951

Greenbay Forrest Lot 12 Fast Track Septic System Information

Number of Bedrooms	4
Basement or Crawl	**Crawl Space**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.25
Primary System Type	**LP PPBPS**
No. Lines	3 (See Table)
Total Linear Feet	320
Trench Width	2' min.
Trench Spacing	8' min.
Min. Trench Depth (low side)	36"
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	100' of 2" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	36 gpm
Elevation head	Approx. 9.2'
Pressure head	3.0'
Friction head	2.2'
20% Contingency	2.9'
Total Head	17.3'
Pump Requirements	36 gpm @ 17.3' of head To be designed by installer.
Maximum Dosing Volume	259.2 gal -2.2 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. 7.2 min.
Check Valve	No
Siphon Break hole	No
Repair System	**LP PPBPS**
Total Linear Feet	330
Repair LTAR	0.25

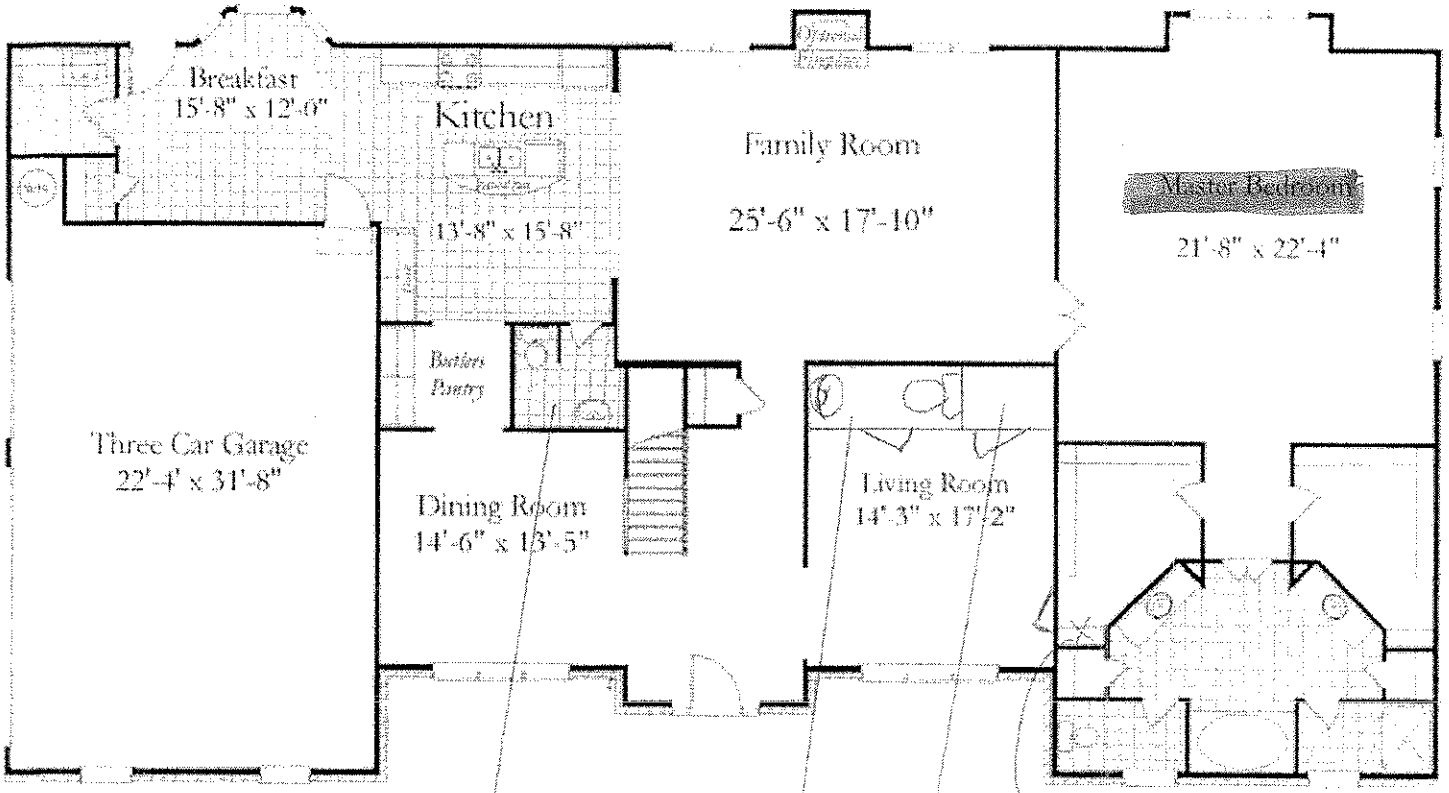
***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Table 1: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elev. (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	Red	LPPPBPS	90 centerfed	5.1	20	20	1 per panel	5/32"
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7	Repair	Blue	LPPPBPS	80					
						Total: 72	Total: 72 (1 in each panel turned up)		
				Total System: 320'					
				Total Repair: 330'					

Tank	Red	1000 gal (2 compartment)	9.3
Pump Tank	Red	1000 gal.	9.3
House	Blue		

Note: **Used existing permit septic lines**
Rod reading for new tank location approximated from topography map

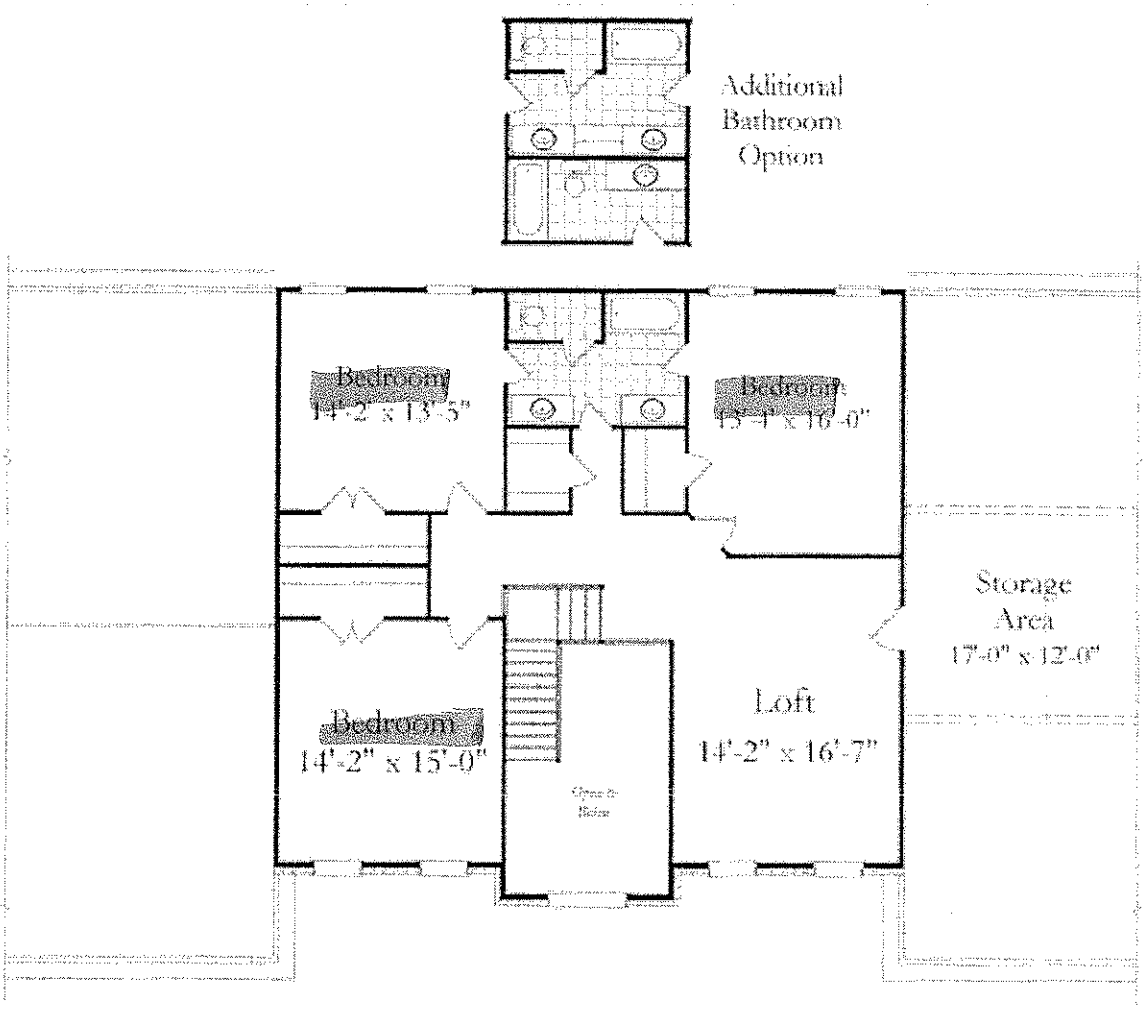


Dickshire Plan

Acknowledgement Of Plans Submittal ONLY!

Kathleen Saunders Date 1-17-14

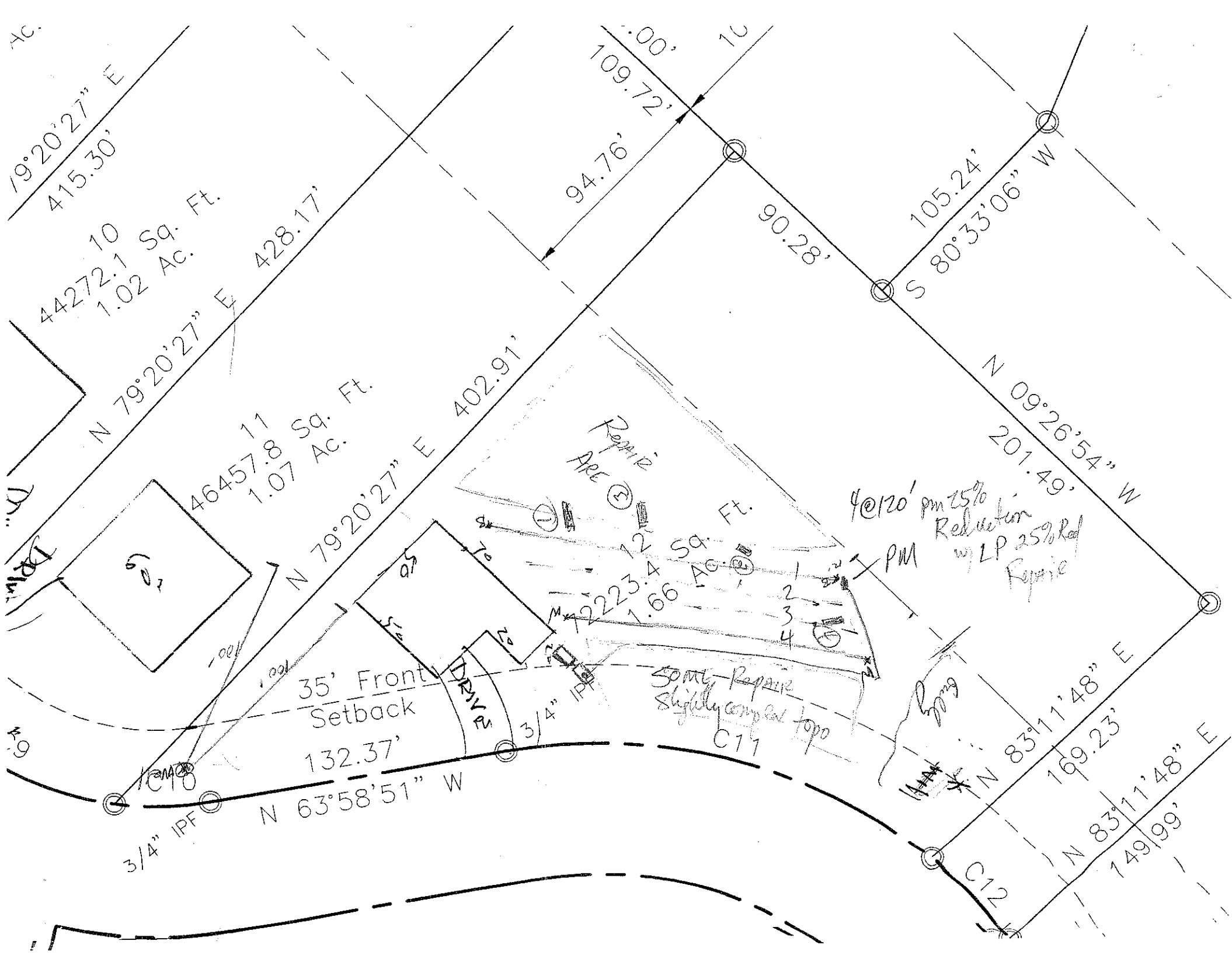
Date 1/24/14



Acknowledgement Of
Plans Submittal ONLY!

Kathleen Saunders Date 1-17-14

Date 1/24/14


19°20'27" E
415.30'
10
44272.1 Sq. Ft.
1.02 Ac.
N 79°20'27" E 428.17'
109.72'
94.76'
90.28'
105.24'
S 80°33'06" W
N 09°26'54" W
201.49'
11
46457.8 Sq. Ft.
1.07 Ac.
N 79°20'27" E 402.91'
Repair Area
12 Sq. Ft.
72223.4
1.66 Ac.
4@120' pm 25% Reduction w/LP 25% Red
PM
Repair
35' Front Setback
DRIVE
3/4" IPF
Some Repair Slightly compact topo
C11
C10
132.37'
N 63°58'51" W
3/4" IPF
N 83°11'48" E
169.23'
N 83°11'48" E
149.99'
C12

DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

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

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Bridgewater APPLICATION DATE _____
ADDRESS: _____ DATE EVALUATED: 7-30-03
PROPOSED FACILITY: SFR PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE: _____
LOCATION OF SITE: Lot 12 Green Bay PROPERTY RECORDED: _____
WATER SUPPLY: ☒ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed · Dig more pits

PROFILE #	.1940 LAND-SCAPE POSITION/ SLOPE %	HORI-ZON 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
1		0-6	wk fsbk brn sl	frssso					.3
		6-29	wk fsbk rysicl	frssso lam in lsop					
		29-37	massive ry sl Lsop	frssso					
		37-48	massive ly sl Lsop	frssso					
2		0-5	gr brn sl	frssso					maybe .3
		5-14	wk sbk light brn sl/scl	frssso					
		14-33	wk sbk light brn-ry scl/cl	frssso					
		33-49	wk sbk yr scl	frssso many mottles Pw/ch 3/4		32-40" lateral water movement? approx not channels & texture change			
3	8-20-03 ~15%	0-14	gr brn sl	frssso					.3-.4
		14-50	wk fsbk Ry sl/scl	frssso					
4		0-7	gr brn SL	frssso					.25-.3
		7-48	wk sbk yr sc gr	frssso few y brn mottles, few ch 3/4					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	OM 25% Red	LPP 25% Red.
Site LTAR	.25	.25

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: DWG
OTHER(S) PRESENT: Paul Pennington

COMMENTS: _____

J.C. Moore
Maintenance Contract

State of North Carolina

County of Iredell Permit Number 201242

THIS AGREEMENT is made and entered into this the 4th day of December, 20 14, by and between Wilhelm Hemm (hereinafter the "Owner") and J.C. moore (hereinafter the "Contractor").

WITNESSETH

WHEREAS, the Owner owns or controls the property upon which a ground absorption sewage treatment system (hereinafter "system") is installed, such system being designated a Type IVA system under the Rules for Sanitary Sewage Collection, Treatment and Disposal found at 15A N.C. Admin. Code 18A. 1900 et seq.; and

WHEREAS, 15A N.C. Admin. Code 18A. 1961 requires a contract to be executed between the system owner and a management entity prior to the issuance of an Operation Permit for said system; and

WHEREAS, 15A N.C. Admin. Code 18A. 1961 requires that a condition of the Operation Permit for said system be that a properly executed contract between the system owner and a management entity shall be in effect for as long as the system is in use; and

WHEREAS, the Contractor is a management entity of a type authorized by 15A N.C. Admin. Code 18A. 1961 to manage a Type IV - A system.

NOW THEREFORE, in consideration of the premises and of the mutual covenants and promises contained in this Agreement, it is hereby agreed by and between the Owner and the Contractor as stipulated below.

1. The Contractor's Obligations. The Contractor shall perform the following services on the owners systems located at 275 Greenbay Rd Mooresville / N.C. 28117

A. The Contractor shall inspect the system at least at the frequency required in Table V (b) of 15A N.C. Admin. Code 18A. 1961 (b) for a Type IV-A system.

B. The Contractor shall perform the following routine maintenance procedures in accordance with the conditions of the Operation Permit.

(1) Inspect the structural integrity and maintain all of the physical and mechanical components of the system.
(2) Inspect the performance and condition of the drain field.
(3) Flush and clean the laterals of the system.
(4) Check and set pressures in the system.
(5) Check and adjust pump delivery rate of the system.
(6) Clean septic tank filter if applicable and accessible.
(7) Perform any other requirements of the Operations Permit.

C. The Contractor shall report the result of its inspections to home Owner after each inspection and to the local Health Department at the frequency specified in Table V (b) of 15A N.C. Admin. Code 18A. 1961 (b) for a Type System.

D. If an inspection indicates the need for system repairs, the Contractor shall notify the local Health Department within 48 hours of the inspection.

E. The Contractor shall notify the Owner of needed repairs, which are outside the scope of routine mainteriance described in subparagraph (b) above. The Contractor shall perform necessary repairs to the system that require the use of hand tools only at the request of the Owner and shall be entitled to payment therefore at the Contractors normal charge for services and materials. The Contractor shall not perform repairs that require the use of heavy equipment, electrical license or plumbing license.

2. The Owner's Obligations.

A. The Owner shall pay the Contractor upon signing this contract, the sum of for the first year of periodic inspections, routine maintenance procedures and periodic reports. The annual fee may be renewed at the end of each 12-month period. The annual fee may be amended upon sixty (60) days advance notice to the Owner but may not increase more that 20 percent per year. The Owner shall pay in the following methods.

( ) to be paid at the time of the signing of this agreement and to be paid before the second scheduled inspection.

(250.00 dollars to be paid at the time of the signing of this agreement.

B. The Owner shall pay to the Contractor his normal and customary fees for any work performed on the system 75.00 dollars per hour, with minimum of one hour, plus cost of material(s) as a result of nonscheduled service or maintenance calls. All fees for nonscheduled service or maintenance are due and payable within thirty (30) days of billing. Payments due to the Contractor and unpaid by the Owner after thirty (30) days shall accrue interest from the due date until paid at a rate of 1.5 percent per month.

C. The Owner shall keep the area of the septic system drain field properly mowed and protected from traffic. The Owner shall keep the designated repair area reserved for future repair to the septic system.

D. The Owner shall provide the Contractor with such access to the system as is reasonably necessary for the Contractor to comply with the terms of this Agreement.

3. Term: This Agreement shall remain in effect until termination.

A. Automatic Termination
This Agreement shall automatically terminate if the Operation Permit for the system is revoked and all appeals of the revocation are exhausted or time for taking an appeal has passed.

B. Termination by Mutual Consent
The Parties may mutually agree to terminate this Agreement by giving written notice of erminate by mutual consent to the local Health Department thirty (30) days in advance of the date of termination.

C. Termination by the Owner
The Owner may terminate this Agreement by giving notice to the Contractor and to the local health Department thirty (30) days in advance of the date of termination.

D. Termination by the Contractor

(1) The Contractor may terminate this Agreement for cause by giving written notice of intent to terminate this Agreement to the Owner and to the local Health Department thirty (30) days in advance of the date of termination. Cause shall be defined as:

(a) failure to remit payment for any bill for services performed under and in accordance with this Agreement if said bill is not paid within thirty (30) days of receipt by the Owner of the bill. If said bill is paid after notice of termination is given but prior to the date of termination of this Agreement this Agreement shall continue in effect; or
(b) failure of the Owner to allow the Contractor such access to the system as is reasonably necessary in order for the Contractor to comply with the terms of this Agreement.

(2) The Contractor may not terminate this Agreement without cause, but may assign its rights and duties under this Agreement as provided in paragraph 4, below.

4. Assignment

A. Assignment by the Owner. The Owner shall notify the Contractor of the name and address of any purchaser of the property on which the system is located. The Owner shall also notify any purchaser of the property on which the system is located of the existence of this Agreement and shall assign all rights and duties under this Agreement to said purchaser.

B. Assignment by the Contractor. The Contractor may assign its rights and duties under this Agreement to another management entity which is qualified pursuant to 15A N.C. Admin. Code 18A. 1961 to manage a Type IVA system upon thirty (30) days written notice to the Owner and the local Health Department.

5. Representations

The Parties represent to each other that each has the power, authority, and legal right to enter into and perform its obligations as set forth in this Agreement.

6. Regulatory Amendments

References in this Agreement to sections of the Administrative Code shall include such rules as they may be amended in the future.

7. No Implied Waiver

The waiver by either Party of a default or a breach by the other Party of any provision of this agreement shall not operate or be construed to operate as a waiver of any subsequent default or breach. The failure at any time of either Party to enforce any provision of this Agreement (a) shall not be construed to be waiver of such provisions, or of any other provision; and (b) shall not in any way affect the validity of this Agreement, or any part of this Agreement, or the right of either Party thereafter to enforce each and every provision of this Agreement.

8. Notice

Every notice required under this Agreement shall be in writing and shall be deemed sufficiently given if delivered in person or sent by mail and addressed as follows:

To the Owner:
Wilhelm Hemm
275 Greenbay Rd
Mooresville, N.C. 28117

To the Contractor:
J.C. Moore
1220 Troutman Dr.
Statesville, N.C. 28625

To the Local Health Department

Iredell Co Health Dept
610 E Center Ave
Mooresville NC. 28115

The date of any Notice shall be the date of delivery. Changes in the respective addresses to whic notice may be directed may be made from time to time by either Party by notice to the other Part

9 Place of Agreement

This Agreement and any questions concerning its validity, construction of and performance shall be governed by the laws of the State of North Carolina, notwithstanding the place of execution o the order in which the signatures of the Parties are affixed.

10 Entire Agreement and Amendment.

This Agreement supersedes all prior negations, agreements and understandings between the Parties with respect to the subject matter hereof and constitutes the entire Agreement between the Parties with respect to the subject matter hereof. To be effective, any amendment or modification to this Agreement must be in writing and must be signed by the Parties.

11 Severability

In the event that any provision of this Agreement shall, for any reason, be determined to be invalid, illegal or unenforceable in any respect, the Parties shall negotiate in good faith and agre to such amendments, modifications or supplements of or to this Agreement or such other appropriate actions as shall, to the maximum extent practicable in light of such determination implement and give effect to the intentions of the Parties as reflected in this Agreement, and th other provisions of this Agreement shall as so amended, modified, supplemented or otherwise affected by such action, remain in full force and effect.

IN TESTIMONY WHEREOF, the Parties hereto have executed this Agreement in duplic originals, one of which is retained by each of the Parties, the day and year first above written

(OWNER) _____

(CONTRACTOR) P. C. Moore

MOORE'S Environmental Services

Operators Responsible for Care (O.R.C.'s):
Jack Moore - Certified Operator #985357
David Lynch - Certified Operator #996383

J.C. Moore
1227 Troutman Drive
Statesville, NC 28625

Phone (704) 873-2171
Fax (704) 873-9928
Mobile (704) 902-1122

MAINTENANCE REPORT FORM

Name and Location of System
Wilhelm Hemm
225 Greenbay Rd
Mooresville, NC 28117

Phone (706) 400-8951
Phone

Date of Inspection
04 Dec 2014

Permit Number
201242

System Classification
Type IV-A

Alternate Mailing Address

Subdivision
Greenbay Forest - Lot 12

County
Iredell

Phone
Phone

SEPTIC TANK AND PUMP TANK

Risers accessible?	[S] Satisfactory
Signs of infiltration?	[S] Satisfactory
Structurally sound?	[S] Satisfactory
Landscape position?	[S] Satisfactory
Septic tank filter cleaned?	NO*
Pump tank filter cleaned?	NO*

SOLIDS ACCUMULATION

Approximate Quantity of Solid Waste in Septic Tank

INLET Scum: ~_____ in. Sludge: ~_____ in.
OUTLET Scum: ~_____ in. Sludge: ~_____ in.

Approximate Percentage of Solids to Liquid Waste in Tank

~ %

DRAIN FIELD

No effluent surfacing?	[S] Satisfactory
Surface water diverted?	[S] Satisfactory
Line cover maintained properly?	[S] Satisfactory
Protected from traffic?	[S] Satisfactory
Distribution devices operating properly?	[–] Not Evaluated
Repair area reserved?	[S] Satisfactory

PUMP

Pump present and operating?
Design GPM 40
Actual GPM
Efficiency 0%

High water alarm operating properly?	[–] Not Evaluated
Pipework in good condition?	[S] Satisfactory
Control panel in good condition?	[S] Satisfactory
Control floats operating properly?	[–] Not Evaluated
Straps / float tree in good condition?	[S] Satisfactory
Effluent free and clear of solids?	[–] Not Evaluated

LOW PRESSURE PIPE SYSTEM

Turnups, cleanouts, valves located and protected?	[S] Satisfactory
Laterals free of excess solids?	[S] Satisfactory
Laterals flushed?	NO*

PRESSURE HEADS

	DESIGN HEAD	ADJUSTED HEAD
Line 1	2	
Line 2	2	
Line 3	2	
Line 4	2	
Line 5	2	
Line 6	2	
Line 7	2	

COMMENTS

Initial site inspection.

Power had not yet been enabled, so we were not able to test the pump / alarm systems.