IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 21987

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

PIN # 4645-09-8754

APPLICANT: Rollans Soil & Env. Services APPLICANT ADDRESS: Po Box 832 Mooresville, NC 28115

SITE ADDRESS: 119 Keats Rd. Mville PHONE: 704-746-5046 ALT. PHONE:

SITE DIRECTIONS: Alcove, TR Templeton, TR Lake Front, TR Keats, on L

SUBDIVISION: RA White Jr. SECTION: LOT # Pt. 7/8 LOT AREA: ~.9AC DESIGN FLOW: 600 L.T.A.R.: .3

Septic Tank	1500	(gal)	STB	444	Date	4-17-15	☒ New System	☐ Repair	☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms	5	Water Supply	
Pump Tank		(gal)	PT		Date		System Description:			Panel Block	☐ Business	No. Persons		☒ Private	
Pump Make		Model			Serial #		Repair System Description:			LP- Panel Block	☐ Other	No. Employees		☐ Public	
# Nitrification Fields	1	# Lines	7 @ 50'		Linear Ft:	350'	Maintenance Agreement Required:	☐ YES	☒ NO		☐ Slab	☐ Crawl Space		☐ Community	
Trench Width	24"	Max. Trench Bottom Depth		30"-45"	Gravel Depth	—		☒ GRAVITY	☐ PRESSURE		☒ Basement w/plumbing			☐ Basement w/o plumbing	

Comments / Conditions: 10/9/15 Checked ST & Lines. MP

Building onto existing House

INITIAL SITE SKETCH

See Plan From

Rollans Soil

&

Environmental Services

AS BUILT SKETCH

Evaluated Soils to 60" for Deeper Trench Bottom.

BA 10-6-15

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: RA Date: 7/24/15 Installed by: Richard Abernathy

IMPROVEMENT PERMIT by: RA APPROVED JUL 22 2015 Date: OPERATION PERMIT by: Maria Dotson Date: 2/7/17

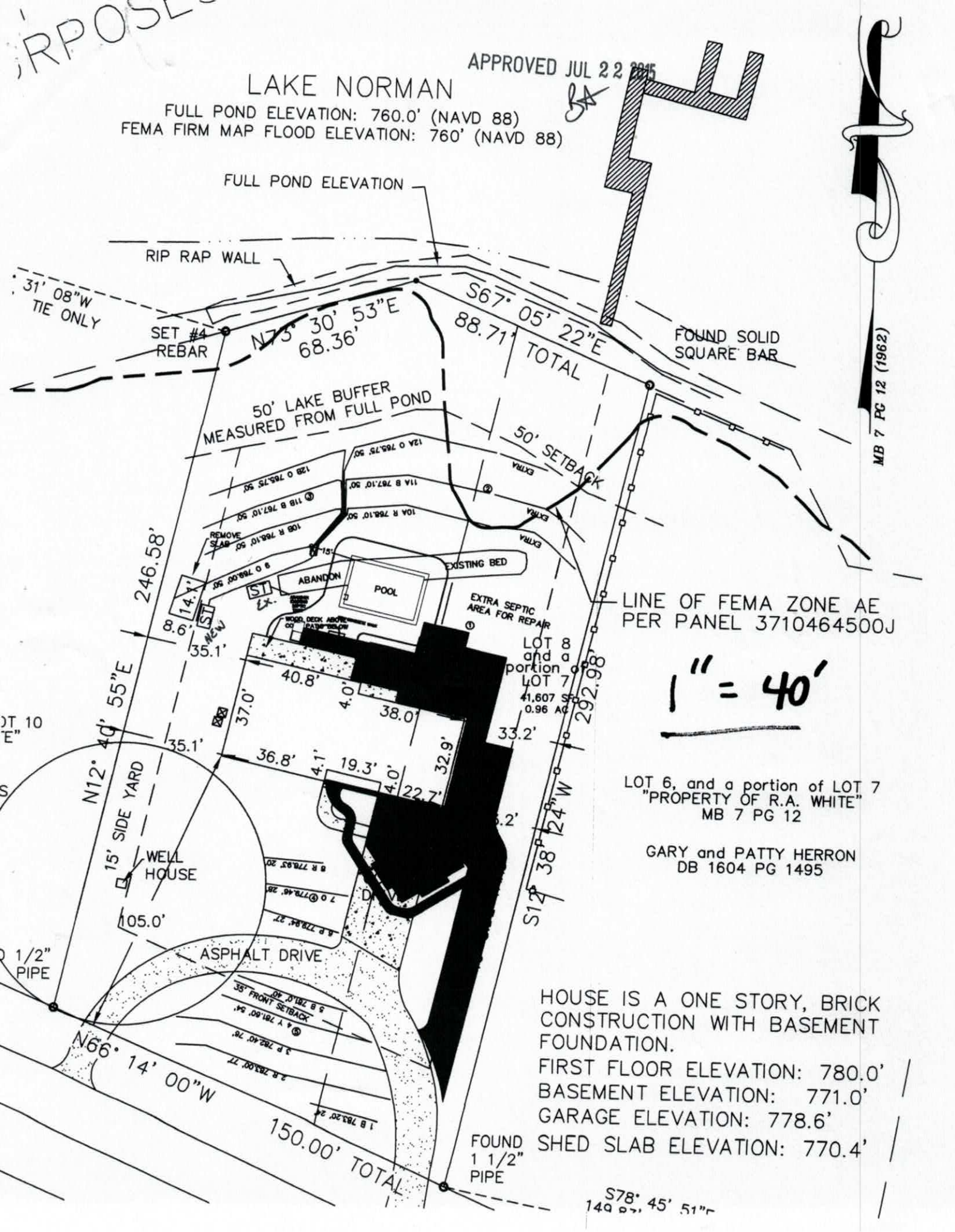
AUTHORIZATION TO CONSTRUCT by: AC-L for RA Date: 7-24-15 Existing System Inspected by: Date:

Health Dept. Copy - WHITE Applicant (Final Approval) - YELLOW Applicant (Conditional Approval) - PINK

APPROVED JUL 22 2015

LAKE NORMAN

FULL POND ELEVATION: 760.0' (NAVD 88)
FEMA FIRM MAP FLOOD ELEVATION: 760' (NAVD 88)



1" = 40'

LOT 6, and a portion of LOT 7
"PROPERTY OF R.A. WHITE"
MB 7 PG 12

GARY and PATTY HERRON
DB 1604 PG 1495

HOUSE IS A ONE STORY, BRICK CONSTRUCTION WITH BASEMENT FOUNDATION.
FIRST FLOOR ELEVATION: 780.0'
BASEMENT ELEVATION: 771.0'
GARAGE ELEVATION: 778.6'
SHED SLAB ELEVATION: 770.4'

APPROVED 2 2 2015

BA

GRAVITY PPBPS SYSTEM FOR WASTEWATER TREATMENT

Owner/Applicant: Gina Cirino

Address: 119 Keats Road
Mooresville, NC 28117

Phone: 480.205.5823

County: Iredell

Location: 119 Keats Road

Source of Wastewater Flow: 5 Bedroom Single Family Residence

Estimated Daily Wastewater Production: 600 gpd

System Flow: N/A

Design Specifications

Drainfield Size: 350

Loading Rate: 0.3

Depth of Gravel in Trench: NA (PPBPS)

Gravel Size: NA (PPBPS)

Trench Depth: 30 in.

Trench Width: 24 in.

Septic Tank Size: 1500 gal.

Pump Tank Size: N/A

Estimated Supply Line Length: 42

Supply Line Diameter: 3 in. SCH 40 PVC

Supply Line Volume: 15.96

Dosing Volume: N/A

Supply Manifold: N/A

Supply Manifold Length: N/A

Supply Manifold Volume: N/A

Recommended Float Controls: N/A

Recommended Control Panel: N/A

Pressure Head: N/A

Friction Head: N/A

Elevation Head: N/A

Total Dynamic Head: N/A

Threaded Union: N/A

Gate Valves: N/A

Check Valves: N/A

Anti-Siphon Hole: N/A

Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

APPROVED JUL 22 2015

119 Keats Road
GRAVITY PPBPS

DESIGN FLOW:	600
SOIL APPLICATION RATE:	0.3
TOTAL AREA TRENCH BOTTOM:	700
TOTAL LATERAL LENGTH:	350
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	333.33
SUPPLY LINE LENGTH:	42
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1500 gal.
PUMP TANK SIZE:	N/A

APPROVED JUL 22 2015

119 Keats Road

Project #:01-2093

LAYOUT FOR 5 BEDROOM HOME

July 13, 2015

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
INSTR. 1							
HOUSE CNR							
P. TANK							
1	[redacted] BLUE				783.20	24	24
2	RED				783.00	77	77
3	PINK				782.40	76	76
4	YELLOW				781.60	54	54
5	BLUE				781.00	40	40
6	PINK				779.94	27	27
7	ORANGE				779.46	28	28
8	RED				778.93	20	20
9	***ORANGE***				***769.00***	***50***	***50***
10A	***RED***				***768.10***	***50***	***50***
10B	***RED***				***768.10***	***50***	***50***
11A	***BLUE***				***767.10***	***50***	***50***
11B	***BLUE***				***767.10***	***50***	***50***
12A	***ORANGE***				***765.75***	***50***	***50***
12B	***ORANGE***				***765.75***	***50***	***50***
					Total	696	696

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***350***	***0.3***	***MOD.***	***0.300***	***PPBPS***	***GRAVITY***
Repair	346	0.3	MOD.	0.300	PPBPS	LOW PRESSURE

Notes: **All septic flags located via Licensed Surveyor.

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

APPROVED JUL 22 2015

GRAVITY PPBPS SPECIFICATIONS - 119 Keats Road

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	# of Panels
9	*ORANGE*	*N/A*	*50*	*N/A*	*N/A*	100	11
10A	*RED*	*N/A*	*50*	*N/A*	*N/A*	100	11
10B	*RED*	*N/A*	*50*	*N/A*	*N/A*	100	11
11A	*BLUE*	*N/A*	*50*	*N/A*	*N/A*	100	11
11B	*BLUE*	*N/A*	*50*	*N/A*	*N/A*	100	11
12A	*ORANGE*	*N/A*	*50*	*N/A*	*N/A*	100	11
12B	*ORANGE*	*N/A*	*50*	*N/A*	*N/A*	100	11
						700	77

total	**feet =**	**350**	**gal/min =**	**N/A**
		Des. Flow	**600**	
		Pump Run=	**N/A**	
		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

APPROVED JUL 22 2015

CALCULATIONS

Location 119 Keats Road

Project Number 01-2093

Lot No: 7/8

No. of Bedrooms 5

Design Flow 600 $^{gal}/_{day}$

LTAR 0.3 $^{gal}/_{ft^2\ day}$

PPBPS? (YES OR NO) YES

Supply Line Length 42 ft.

Supply Line Volume 15.96 gal.

Required Feet of Line 333.33 ft.
Amount of Line from Layout 350 ft.

Gallons per Minute N/A $^{gal}/_{min}$

Required Septic Tank Capacity 1500 gal.
Minimum Standard Tank Size 1500 gal.

Panel Volume 3.6 gal.
# of Panels 77
Dosing Volume N/A gal.

Tank Draw Down N/A

Pump Run Time N/A minutes

Elevation Head N/A ft.
Pressure Head N/A ft.
Friction Factor N/A ft./100 ft. *(From the interpolater.)*
Friction Head N/A ft.

Total Dynamic Head (+15%) N/A 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

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

APPROVED JUL 22 2015 BA

Sheet 1 of 2
PROPERTY ID #: 4645098754
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

PREVIOUS OWNER: Opal Wicker & Elizabeth Ann Wicker / CURRENT OWNER GINA GIRINO
ADDRESS: 119 Keats Rd Mooresville NC 28117
PROPOSED FACILITY: 4-5 BR
PROPOSED DESIGN FLOW (.1949): ~~480~~ 600gpd
LOCATION OF SITE: 119 Keats Rd, Mooresville NC 28117
APPLICATION DATE 7/13/15
DATE EVALUATED: 9/14
PROPERTY SIZE: ±1.0ac
PROPERTY RECORDED: ±

WATER SUPPLY: ☒ Private ☐ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	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	L/6%	0-24	RC mmsbk	Fr SS SP		45"			.3
		24-45	RYCl wfsbk	Fr SSSP-f.SAP					
		45-48	VAR.L MASS	Fr SSSP " "					
2	L/7%	0-44	RC mmsbk/Abk	Fr SS SP		48"			.3
		44-48	RYCl wfsbk	Fr SSSP-f.SAP					
3	L/7%	0-10	BR Clc wmsbk	Fr SS SP		48"			.3
		10-41	Rc mmsbk	Fr SS SP					
		41-48	RYCl wfsbk	Fr SSSP-f.SAP					
4	L/4%	0-12	BCl gr-wfsbk	Fr SSSP SEXH		48"			.3
		12-44	Rc mmsbk	" " " "					
		44-48	RCl mfsbk	" " " "					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	~~[illegible]~~ PPBPS	PPBPS
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Samuel Ashley Rollins
OTHER(S) PRESENT:

COMMENTS: Based on 5 BR house,

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

APPROVED JUL 22 2015

Sheet 2 of 2

EPARTMENT OF HEALTH AND HUMAN SERVICES
IVISION OF PUBLIC HEALTH
NVIRONMENTAL HEALTH SECTION
N-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 4645098754
DATE OF EVALUATION: 7/14&4/15
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	4 7%	0-9	Bclgrwfsbk	FrSSSPSExp	-fsap	48			3
		9-36	Rcmmsbk	n n n n					
		36-48	RYclwfsbk	n n n n					

MMENTS:

ted February 2014

RECEIVED JUL 1 4 2015

Paid $350.00

#211987

IREDELL COUNTY HEALTH DEPARTMENT

Application For Improvement Permit and/or Authorization To Construct, Existing System Inspection

(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)

1. APPLICATION FOR: ___ Improvement Permit X Authorization To Construct ___BOTH ___Existing System Inspection

2. 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 check ( ) beside whichever is submitted if applicable ___ Custom Site Plan, Scaled no more than 1 Inch = 60 Feet

3. Applicant Information:

Rollans Soil	PO Box 832 Mooresville NC 28115		704 746 5046
Applicant Name	Mailing Address	Home Phone	Work Phone
Gina Cirino	119 Keats Road, Mooresville NC 28117		480 205 5823
Owner Name	Mailing Address	Home Phone	Work Phone

4. Property Information:

119 Keats Rd Mooresville NC 28117	RA White JR.	7/8
Street Address	Subdivision Name	Section/Phase and Lot Number

Driving Directions: Alcove, Rt on Templeton, Rt on Lakefront, Rt on Keats, HSE on Lt,

****

5. RESIDENTIAL Site Development Information: *(Check or Complete ALL that apply)*

(✓) New, Single Family Residence Addition on Existing House & POOL
( ) New, Multi-Family Residence
( ) Expansion of Existing Septic System
( ) Repair To Failing Septic System

Maximum Number of Bedrooms 5
Maximum Number of Occupants 10
If Expansion, Current Number of Bedrooms 3?
Permit does not Indicate but Verts ... is Proposed

( ) Crawl Space Foundation?
( ) Concrete Slab Foundation?
(✓) Basement w/Plumbing?
( ) Basement w/out Plumbing?

IF Non- Residential Site Development: Type of Business ______
Square Footage of Building ______
Maximum Number of Employees ______
Maximum Number of Seats ______

****

6. Proposed Water Supply:

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

****

7. Desired Septic System Type: *(You may rank in order of preference, if any)*

( ) Alternative ( ) Conventional ( ) Innovative (✓) Modified Conventional PPBPS ( ) Other______ ( ) No Preference

****

8. Please Answer The Following To The Best of Your Ability:

( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
( ) Yes (✓) No Is any non-domestic sewage (i.e. industry) to be generated?
( ) Yes (✓) 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.

9. Signature: [signature] 7/13/15
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

AUTHORIZATION TO ACT AS AGENT FOR OWNER

Any application/document/permit requiring a signature must be signed by the property owner or their authorized agent. This form shall be provided by the owner to allow specified individuals to act as agents for the owner. This form allows the specified individuals to sign or receive any application/document/permit on behalf of the owner. This form allows the authorized agent to make decisions on behalf of the owner pertaining to modifications of permits in the field. It is the responsibility of the owner to assure that any/all permit conditions specified on permits issued by this Division are followed.

I, SILVER LINING PROPERTIES, INC, am the legal owner of the property located at 111 CHANNEL POINT LN, identified as PIN(Parcel Identification Number) 4614923590.00, located in Iredell County, North Carolina.

I do hereby authorize (print authorized agent/company name) ASHLEY ROLLANS, ROLLANS SOIL & ENVIRONMENTAL, _____, _____, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

1. Improvement Permit (IP)/ Authorization to Construct (AC).
2. Application for soil-site evaluation (new/repair).
3. Application/permit for water well/well abandonment.
4. Application for existing system.
5. Application for Improvement Permit (IP)/ Authorization to Construct (AC).

I agree to abide by any and all decisions and/or conditions between the agent acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division. This form must be fully executed before the individual's specified above will be recognized as the authorized agent.

[signature] 7/15/15
Signature of Owner Date

Steve Benfield 7/15/15
Signature of Witness Date

IREDELL COUNTY HEATLH DEPARTMENT

PAGE 2: *SITE PLAN WORKSHEET*

SEE THE SAMPLE SITE PLAN BELOW. INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!

Place an (X) beside each item as you complete the site plan:

- Property Line measurements are clearly identified…
- All proposed structures are indicated…
- *SHOW: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site*
- Front and side setbacks from property line…
- Preferred driveway location and configuration, preferred well location…
- Area you prefer your septic system to be placed…
- North arrow, or other sufficient indicator of direction…

Circle N/A on the following if appropriate:

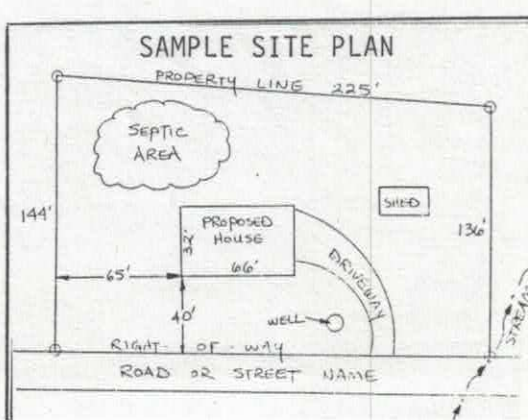
- Location of septic systems and wells within 100' of your property… N/A
- Location of easements and rights of ways on your property… N/A
- Location of any designated wetlands on the property… N/A

Signature: Daniel R Hollar — 7/13/15

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

USE THIS SPACE TO DRAW YOUR SITE PLAN

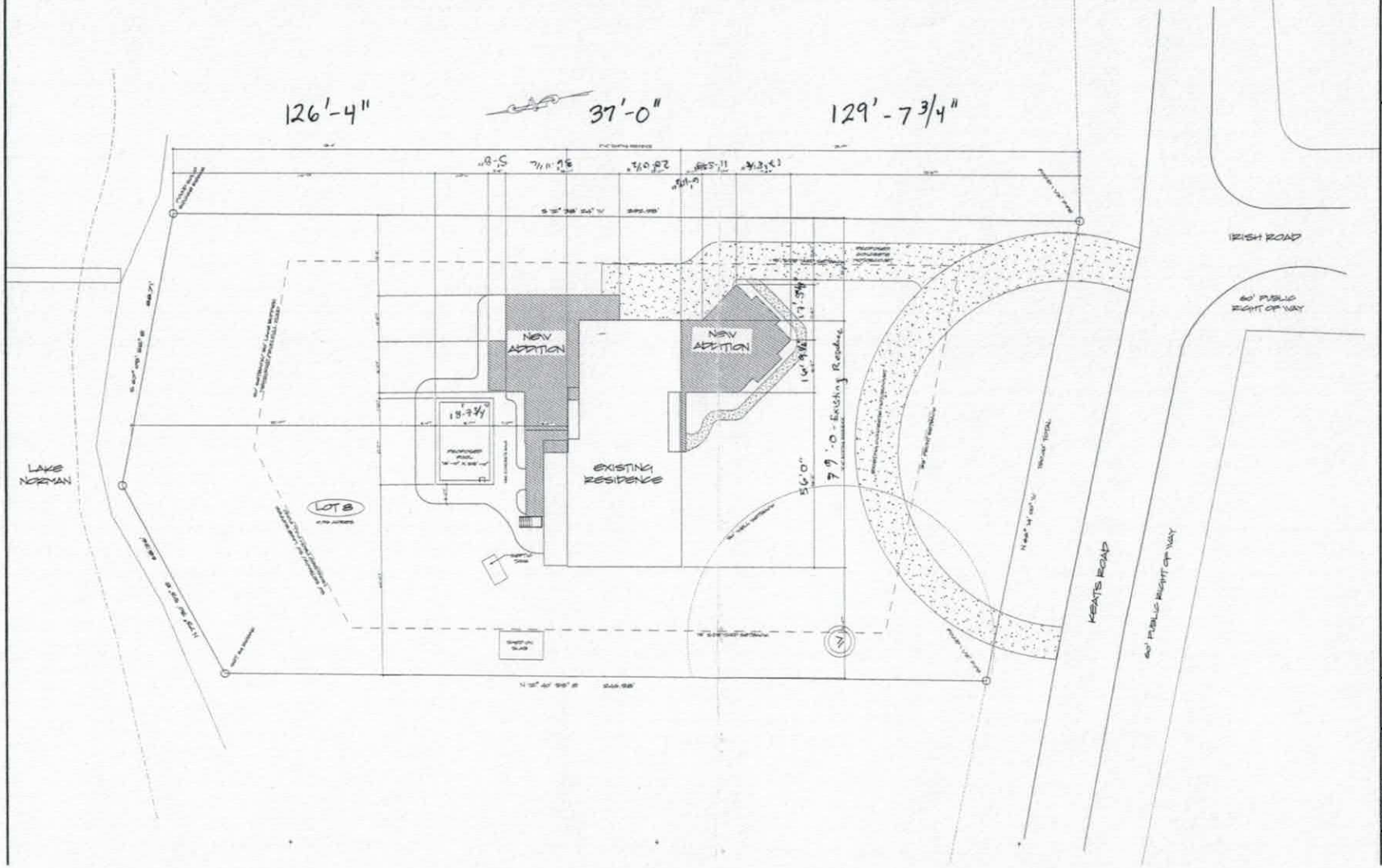
See Attached



Acknowledgement of
Plans Submittal ONLY!

_____ Date 7/24/15

_____ Date _____



KH RESIDENTIAL DESIGNS.COM
704-728-0505
N C B D C

THE CHEIND RESIDENCE
118 KEATS ROAD
MOORESVILLE, NORTH CAROLINA

MEMBER AIBD

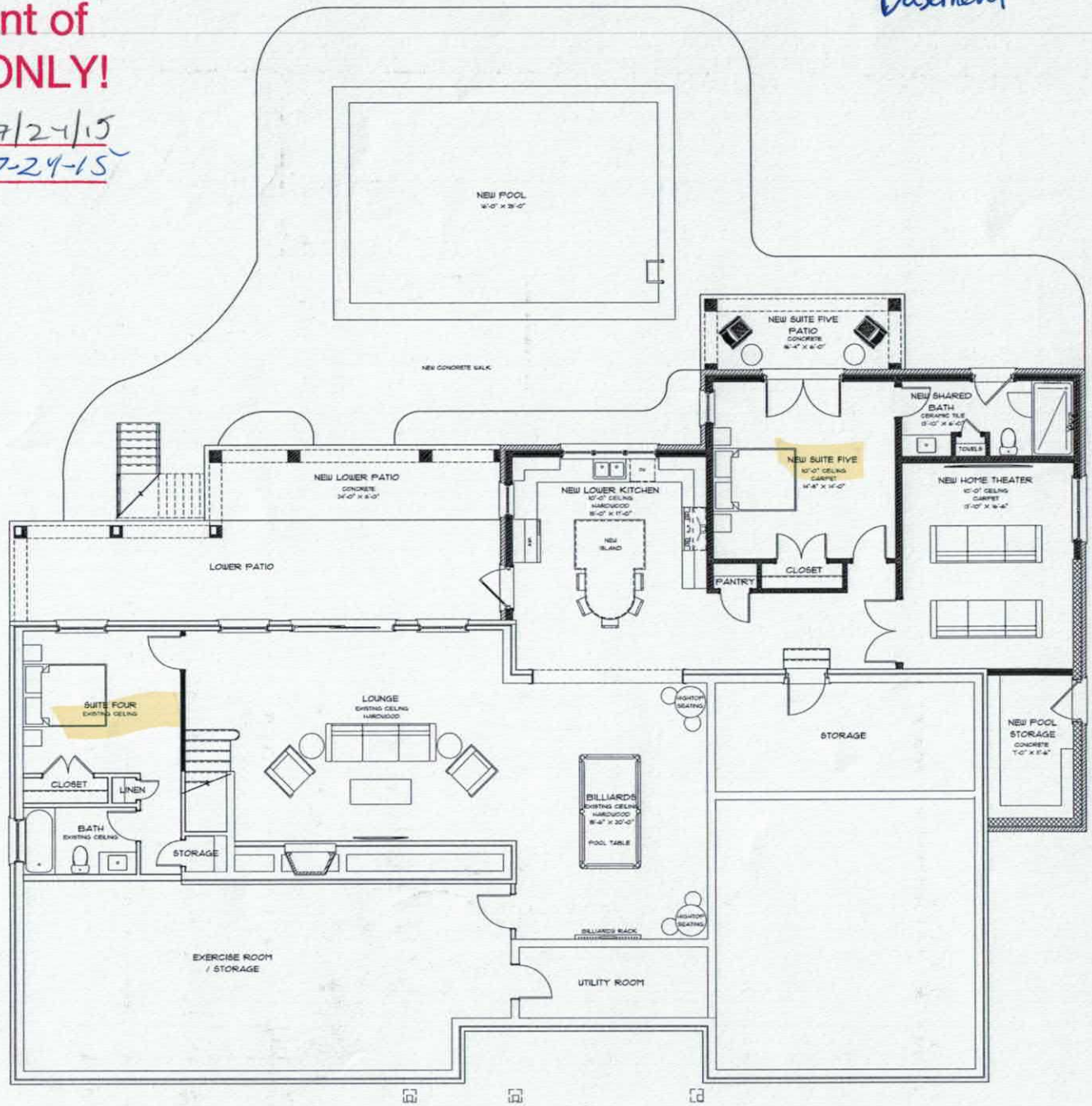
SHEET TITLE
SITE PLAN

Basement

Acknowledgement of
Plans Submittal ONLY!

Date 7/24/15

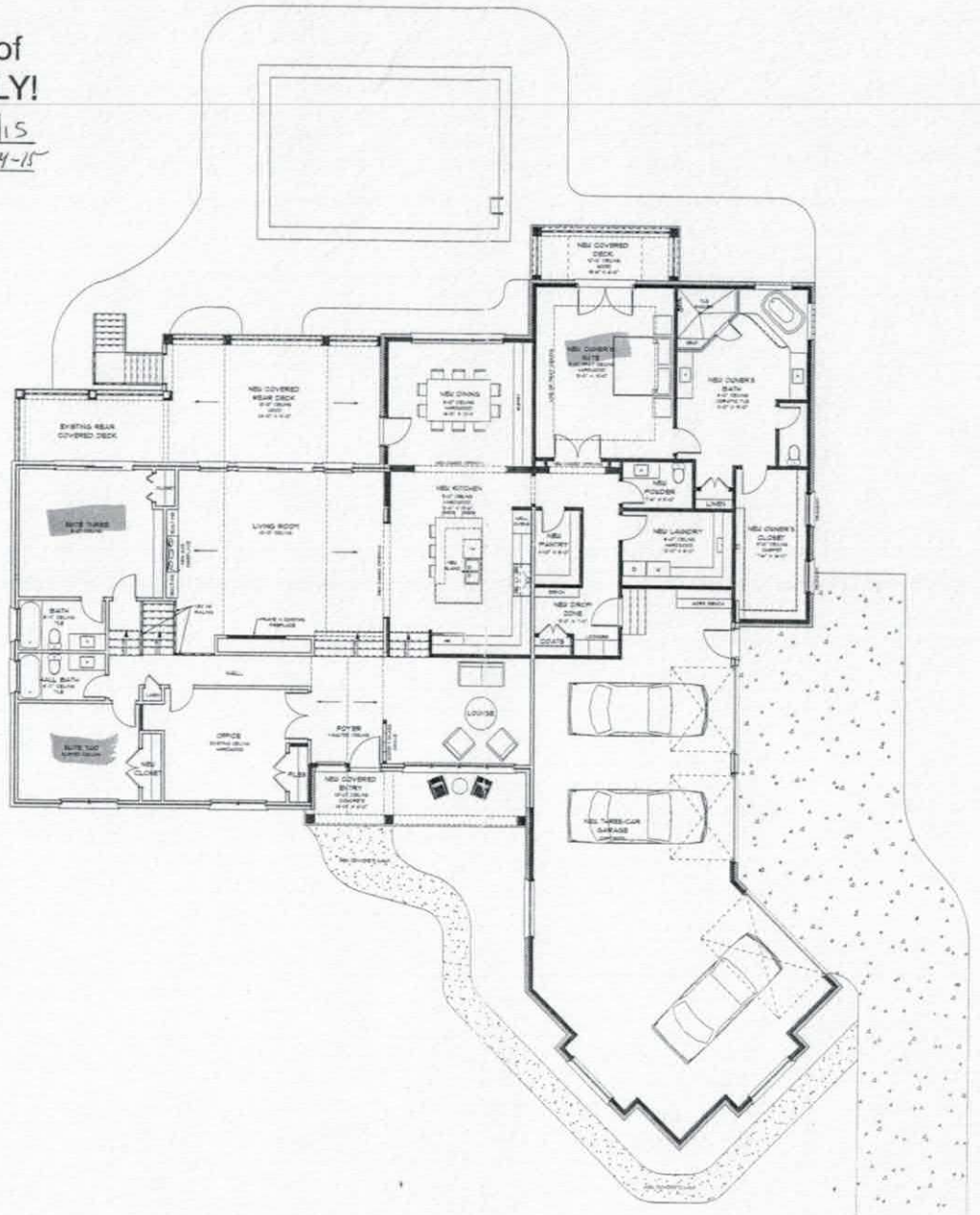
Date 7-24-15



Acknowledgement of
Plans Submittal ONLY!

Date 7/24/15

Date 7-24-15



WALL TEMPLATE
EXISTING WALLS
NEW WALLS

EXISTING SQUARE FOOTAGE
TOTAL HEATED
TOTAL EX. UNDER ROOF

NEW SQUARE FOOTAGE
TOTAL HEATED
TOTAL NEW UNDER ROOF

TOTAL HEATED
TOTAL UNDER ROOF

K&H RESIDENTIAL DESIGNS.COM
704-728-0505

N·C·B·D·C

INTELLIGENT DESIGN

THE GIBIND RESIDENCE
TIP PEARTS ROAD
MOORESVILLE, NORTH CAROLINA

MEMBER AIBD

SHEET TITLE
FIRST FLOOR PLAN

IREDELL COUNTY

PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER
211987
Issue Date: 07/13/2015

ZONING PERMIT

Parcel Number	Street Address	Jurisdiction
4645098754.000	119 KEATS ROAD, MOORESVILLE, NC	IREDELL COUNTY

Owner Information		Applicant Information	
Owner:	WICKER OPAL+ELIZABETH ANN WICKER	Applicant:	ROLLANS SOIL & ENVIRON
Address:	1027 PARK WEST DRIVE MOORESVILLE, NC 28209	Address:	470 NORTH BROAD STREET SUITE D MOORESVILLE, NC 28115
Phone:		Phone:	704-658-1723

Use Requested	Zone Code
ADDITION TO EXISTING HOUSE	R20

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
	35.00	50.00	15.00	15.00	CACL	AE

Remarks:

ADDING TO EXISTING HOUSE

50 Æ setback is off the 760 line and 35 Æ off the rear property line since it doesn Æt look like it matches up perfectly.

$ PAID 1044
7-13-15

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Applicant: _____ Date: 7/13/15

Permit Number	43514	TOTAL FEES:	$ 77.25