ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # OSWP-2023-24177

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

PIN # 4665-99-3609

PPLICANT / OWNER: Joe Greene Stacy Built Homes APPLICANT ADDRESS: 175 Lenoxdale Drive Mt. Ulla, NC 28125

ITE ADDRESS: 187 BOW LN, MOORESVILLE, NC 28115 PHONE: ALT. PHONE:

ITE DIRECTIONS: Hwy 3 to Kistler Farm Rd to Bow Lane SAP CONTROLLED: YES ☐ NO ☑

UBDIVISION: SECTION: — LOT #: — LOT AREA: 1.676 DESIGN FLOW: 360 L.T.A.R.: 0.3

eptic Tank: 1000 (gal)	STB: 760	Date: 7/8/23	☒ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 3	Water Supply: New Well
ump Tank: (gal)	PT:	Date:	System Description: Gravity PPBPS 50% reduction		☐ Business	No. Persons: 6	
ump Make:	Model:	Serial #:	Repair System Description: LP PPBPS 50% reduction		☐ Other	No. Employees:	
Nitrification Fields: 1	# Lines: 4	Linear Ft.: 200	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
rench Width: 24	Trench Bottom Depth (Low side): 40		Gravel Depth:	☑ GRAVITY ☐ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

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

INITIAL SITE SKETCH

AS BUILT SKETCH

Installed as shown on permit except line length changes

rmit 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.

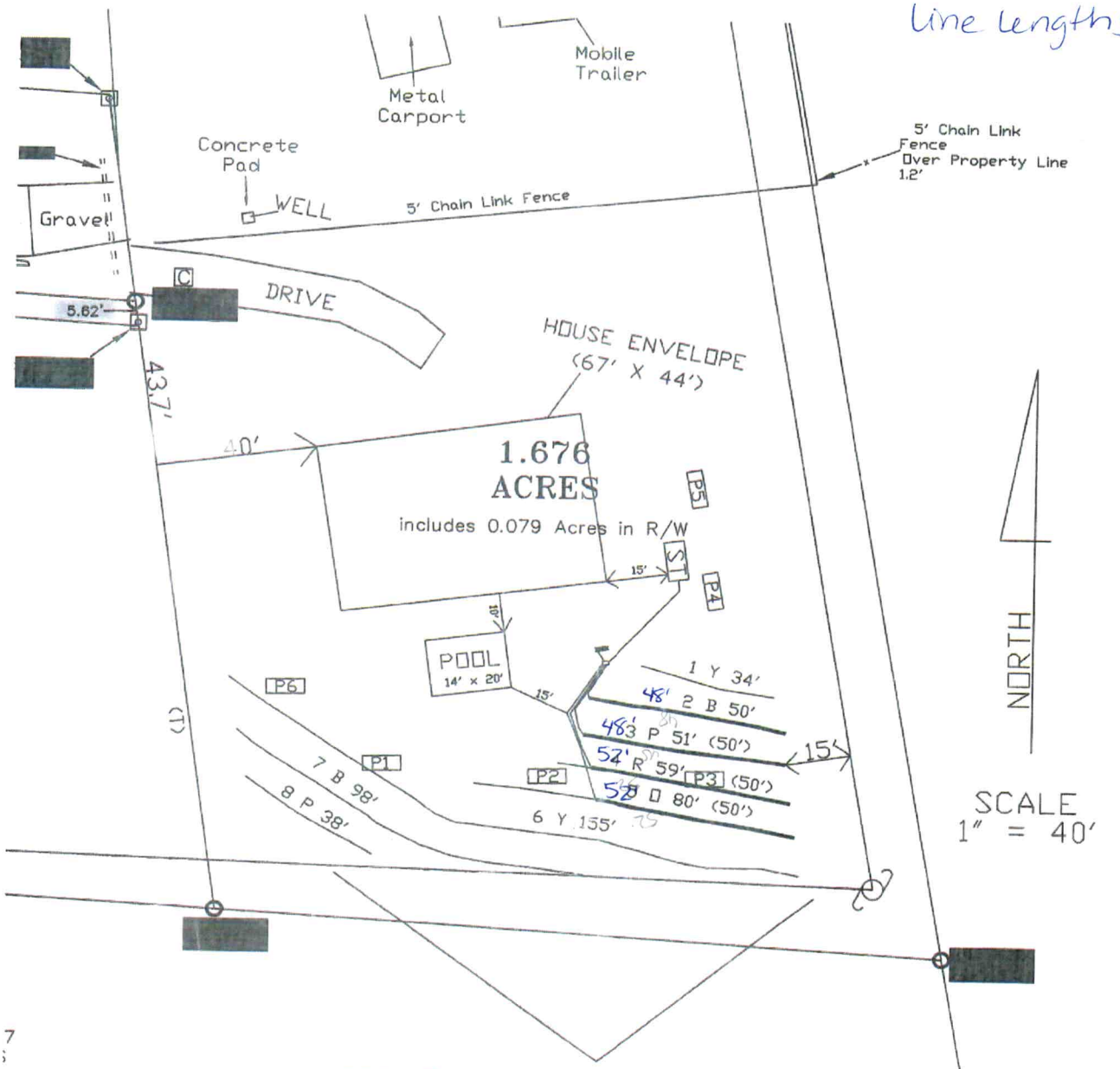
wner / Applicant Signature: Date: Installed By: Frye Grading

IPROVEMENT PERMIT by: Benjamin A Bottoms Date: 5/17/2023 OPERATION PERMIT by: D. Weberg Date: 8/22/23

UTHORIZATION TO CONSTRUCT by: Benjamin A Bottoms Date: 5/17/2023 Existing System Inspected By: Date:

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

Note final
line lengths



TAX

D

NEED ENCROACHMENT UNDER POWERLINE IN THIS AREA TO ACCOMMODATE SEPTIC SEE ENCROACHMENT AGREEMENT

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 5-15-2023 (Date) by BB (Initials)

Permit Number: OSWP-2023-2477

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. Botts Date of Issuance: 5/17/2023

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: 5/17/2028.

See attached site sketch

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 5-15-2023 (Date) by BB. (Initials)

Permit Number: OSWP-2023-24177

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. Botkin Date of Issuance: 5/17/2023

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: 5/17/2028

See attached site sketch

County: Iredell

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

PIN/Lot Identifier: 4665 99 3600

Issued To: Chad Green

Property Location: 187 Bow Lane Mooresville NC 28115

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

Facility Type. Single Family Home

☒ New ☐ Expansion ☐ Repair System Relocation ☐

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

Type of Wastewater System** Mod. Conv-PPBS-gravity (Initial) Mod. Conv-PPBS- Low Pressure (Repair)

Design Daily Flow: 360 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: 1000 gallons Total Trench/Bed Length: 200 feet Trench/Bed Spacing: 8 feet on center

Drainfield square footage: 600 sqft Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft²

Soil Cover: 6 min inches Slope Adjusted Maximum Trench/Bed Depth: 40 low inches

Aggregate Depth: _____inches above pipe _____inches below pipe _____inches total

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

Pump Requirements: _____ ft. TDH vs. _____ 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 - see attached

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: _____

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: 10/7/22

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

See attached site sketch

County: Iredell

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

PIN/Lot Identifier: 4665994360 9

Issued To: Chad Green

Property Location: 187 Bow lane Mooresville NC 28115

Subdivision: _____ Lot #: _____ Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Samuel Ashley Rollans 1231

New ☒ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: Single Family

Proposed Wastewater System Type: Mod conv - PPBS - Gravity (Initial) Mod conv - PPBS - Low Pressure (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: 360 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.25

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

Number of bedrooms: 3 Number of Occupants: 6 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: 10/7/22

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

See attached site sketch

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Project#: 21-0081
October 27th, 2021

CHAD GREENE
Attn: *Chad Greene*
Email: keepitgreene2001@gmail.com

RE: Soil & Site Evaluation for a 3 Bedroom Residence at 187 Bow Lane, Mooresville, NC 28115, PIN # (4665993609), Iredell County.

Mr. Greene:

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 subsurface wastewater disposal systems and provide design details for Session Law submittal to Iredell County Health Department.

Site Conditions

At the time of our evaluation land cover on the property was mostly open and a few mixed hardwood/pine. Topography within the evaluated area was gentle slope near the house site and moderate slope near the proposed drainfield area. Property lines and corners were marked at the time of the evaluation by Geomatic Concepts Surveying. The Surveyor provided an Autocad File of the survey as a basemap. The proposed septic layout was located via measuring tape/GPS and used to produce the attached *Site Plan*. The house envelope was located via Survey but moved to accommodate a gravity system. The attached Site Plan provided has house plot, setbacks and lot size. Duke Energy provided an Encroachment Agreement to allow septic under the existing power line (see Design).

Methodology

We evaluated soil areas through the use of backhoe pits. Soil morphological conditions including color, texture, structure, etc. were reviewed in the field with six pit locations on the property flagged and located via GPS. Four of the six backhoe pits 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 house envelope is shown on the Site Plan. An on-ground layout of system and repair was performed using a laser level. Pin flag locations of the layout were also located

by tape measure and GPS. Detailed system & repair information is summarized in the following paragraph for this Lot.

187 Bow Lane (*See Attached Design*)
The septic layout for this lot (9' centers) yielded a total of 565 linear feet of line. The primary system is proposed as 200 linear feet of Mod. Conv. (PPBPS 50% Reduction) drainfield with gravity distribution. Trench depth (Low Side) is specified at 40 inches. The repair system is proposed as 240 linear feet of PPBPS (50% Reduction) drainfield with low pressure distribution. Trench depth (Low Side) is specified at 30 inches. There is 355 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

Print Name Christopher Chad Greene Date 11/28/2022
Signature

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 at 187 Bow Lane may nullify this design. 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,

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

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for an Modified Conventional Septic System with gravity dist. for a 3 bedroom single family residence at 187 Bow Lane PIN#(4665993609) Mooresville 28115, Iredell County, NC.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
Site Plan/System Plan	5
Calculations	6
Profile Descriptions	7-8
Application	9-10
Green Sheet	11
Agent Authorization Form	12
Duke Energy Encroachment Agreement	13

October 22, 2021
Project #: 21-0081
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.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a gravity PPBPS installation.
- System is specified as a PPBPS w/Low Pressure installation.

GRAVITY PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Applicant:	Chad Green
Address:	132 Manor Circle Mooresville, NC 28115
Phone:	980.722.1899
County:	Iredell
Location:	187 Bow Lane Mooresville, NC 28115
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	360
System Flow:	N/A

Design Specifications

Drainfield Size:	200	
Loading Rate (gpd/ft.^{2}):	0.3	
Depth of Gravel in Trench:	N/A	
Gravel Size:	N/A	
Max.Trench Depth (LOW SIDE):	40 in.	Repair Trench Bottom 30 in.
Trench Width:	24 in.	
Septic Tank Size:	1000	

Estimated Supply Line Length:	30
Supply Line Diameter:	4 in. SCH 40 PVC
Supply Line Volume:	1.31
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 Soil & Forestry Services of the Carolinas

187 Bow Lane

PPBPS SYSTEM

DESIGN FLOW (gpd):	360
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	400
TOTAL LATERAL LENGTH:	200
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	200.0000
SUPPLY LINE LENGTH:	30
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

Layout Specifications - 187 Bow Lane

Project #: 21-0081

LAYOUT FOR 3 BEDROOM HOME

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	10/22/2021 DESIGN LINE LENGTH
TBM							
INSTR. 1							
1	YELLOW					34	34
2	***BLUE***					***50***	***50***
3	***PINK***					***51***	***50***
4	***RED***					***59***	***50***
5	***ORANGE***					***80***	***50***
6	RED					155	155
7	ORANGE					98	98
8	PINK					38	38
					Total	565	525

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION	Low Side TRENCH DEPTH
** System*	*200*	*0.300*	**MOD. CONV**	*0.300*	***PPBPS***	***GRAVITY***	40"
Repair	355	0.250	MOD. CONV	0.250	***PPBPS***	LOW PRESSURE	30"

Notes: **All measures in feet

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

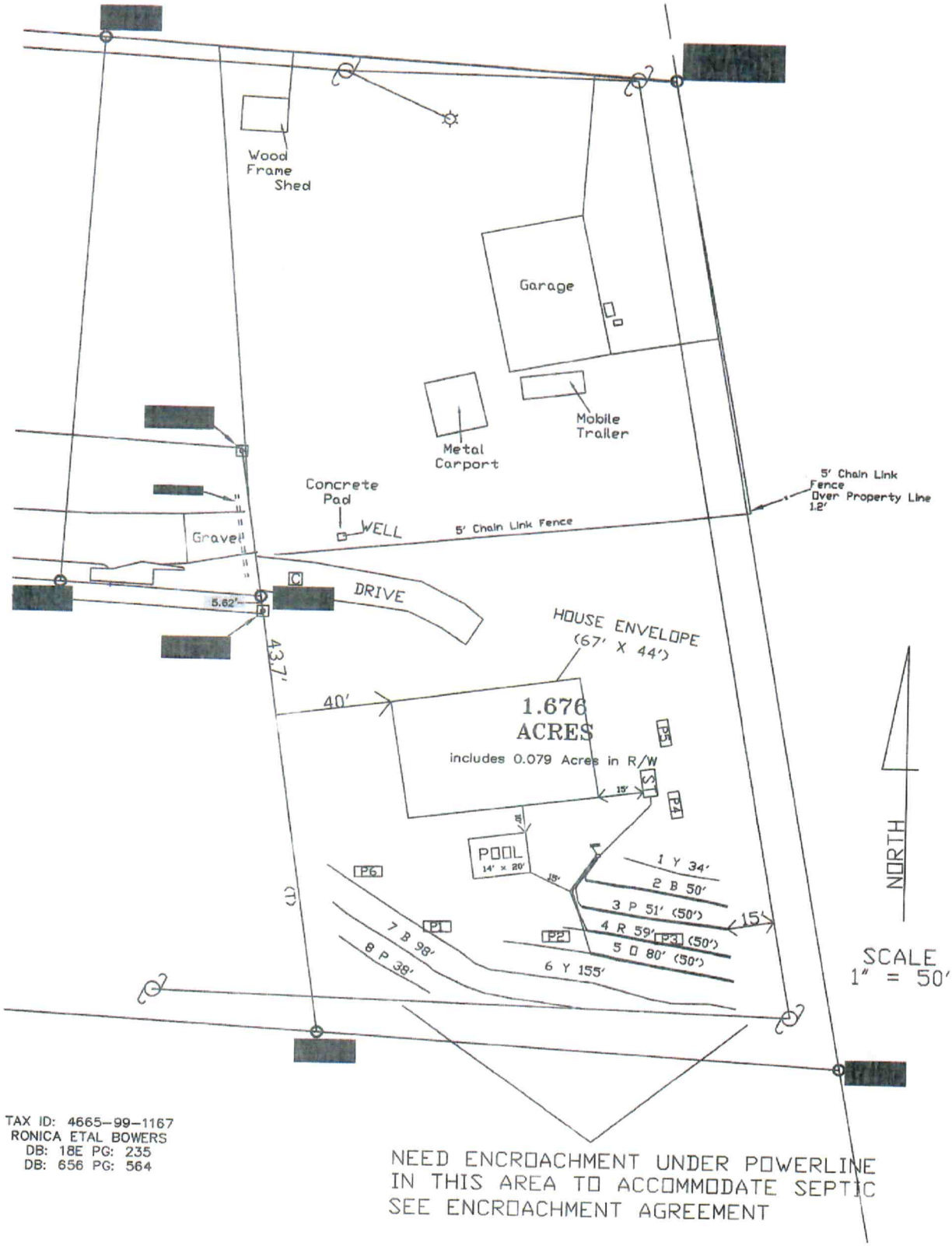
**Nitrification lines were located via GPS & Tape Measure

GRAVITY PPBPS SPECIFICATIONS - 187 Bow Lane

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	# of Panels
2	BLUE	N/A	50	N/A	N/A	100	12
3	PINK	N/A	50	N/A	N/A	100	12
4	RED	N/A	50	N/A	N/A	100	12
5	ORANGE	N/A	50	N/A	N/A	100	12
						400	48

total	feet =	200	gal/min =	N/A	
		Des. Flow	360		
		Pump Run=	N/A		
		soil LTAR	0.3		
		LTAR +5%	0.315		
		LTAR with mod.	0.6		
		LTAR with mod.. + 5%	0.63		



TAX ID: 4665-99-1167
RONICA ETAL BOWERS
DB: 18E PG: 235
DB: 656 PG: 564

NEED ENCROACHMENT UNDER POWERLINE
IN THIS AREA TO ACCOMMODATE SEPTIC
SEE ENCROACHMENT AGREEMENT

CALCULATIONS

Location 187 Bow Lane
Mooresville, NC 28115
Project Number 21-0081

Lot No: NA

No. of Bedrooms 3

Design Flow 360 $^{gal}/_{day}$

LTAR 0.300 $^{gal}/_{ft^2\,day}$

PPBPS? (YES OR NO) YES

Supply Line Length 30 ft.

Supply Line Volume 19.59 gal.

Required Feet of Line 200 ft.
Amount of Line from Layout 200 ft.

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

Required Septic Tank Capacity 1000 gal.
Septic Tank Size 1000 gal.

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

Tank Draw Down N/A

Pump Run Time

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 HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Sheet 1 of 2
PROPERTY ID #: 4659993609
COUNTY: Iredell

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**
(Complete all fields in full)

OWNER: Chad Green
ADDRESS: 132 Manor Circle Mooresville NC 28115 — APPLICATION DATE
PROPOSED FACILITY: 3 BR — PROPOSED DESIGN FLOW (.1949): 360 gpd — DATE EVALUATED:
LOCATION OF SITE: 197 Bear Lane Mooresville NC 28115 — PROPERTY SIZE: 1.68ac
WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other — PROPERTY RECORDED: Yes
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
P 1	L/3	0-10	BC 3	FI SS SP		57"	-	-	0.[illegible]
		10-17	[illegible]	Fr SS SP					
		17-[illegible]	[illegible]	[illegible]					
P 2	L 3%	0-[illegible]	[illegible]	[illegible]		66"	-	-	.25
P 3	L/3	0-8	[illegible]	[illegible]		60"	PS	-	0.
P 4	L/3	0-10	[illegible]	[illegible]		70"	-	-	0
		10-17	[illegible]	[illegible]					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	PPBC w/gravity	Accepted
Site LTAR	0.3	0.25

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

COMMENTS:

Updated February 2014

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

PROPERTY ID #: Same

DATE OF EVALUATION: Same

COUNTY: Same

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	

Type: CONSOLIDATED REAL PROPERTY
Recorded: 10/20/2021 11:45:48 AM
Fee Amt: $26.00 Page 1 of 7
Iredell County, NC
Maureen P. Purcell Register of Deeds

BK 2862 PG 2295 - 2301

North Carolina

Iredell County

Site: 187 Bow Ln

Project Number: 41997665

North Carolina
Distribution Encroachment Agreement
for Nitrification Field Encroachments

THIS NORTH CAROLINA DISTRIBUTION ENCROACHMENT AGREEMENT FOR NITRIFICATION FIELD ENCROACHMENTS ("Agreement"), made this _____ day of _____, 20____, by and between **DUKE ENERGY CAROLINAS, LLC**, a North Carolina limited liability company ("Duke Energy"), and CHRISTOPHER CHAD GREENE and wife, JENNIFER NANTZ GREENE ("Grantee").

- Grantee is the owner of a 1.677-acre lot of land situated in Mooresville Township, Iredell County, North Carolina, and being the land described in a deed from Dennis Dale Nantz and Judy H. Nantz to Christopher Chad Greene, and wife Jennifer Nantz Greene, dated September 7, 2021, and recorded in Deed Book 2848, Page 1786, all Iredell County Registry (the "Property");

- Duke Energy has previously acquired a Thirty (30) foot wide easement area over the Property on which easement area Duke Energy maintains and operates electrical facilities (the "Easement Area"); and

- Grantee desires to use a portion of the Easement Area for the construction, installation, operation, and maintenance of a nitrification field (the "Encroachment").

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein contained, Duke Energy, insofar as Duke Energy's rights are concerned, hereby authorizes Grantee, his heirs and assigns, ingress and egress to construct, install, operate, monitor, repair, and maintain the Encroachment within the Easement Area upon the following terms and conditions:

Submitted electronically by "Duke Energy"
in compliance with North Carolina statutes governing recordable documents
and the terms of the submitter agreement with the Iredell County Register of Deeds.

1. Grantee shall construct, install, operate and maintain the Encroachment as shown on a map, dated October 1, 2021, and entitled "187 BOW LN SEPTIC ENCROACHMENT MAP," which is attached hereto as **Exhibit A** and incorporated herein by reference (the "Map"). Other than removing the Encroachment, Grantee shall not alter or add to the Encroachment in any way without receiving prior written consent from Duke Energy. Should Grantee perform any work in the Easement Area without the prior written consent of Duke Energy, should it fail to perform the work in a manner consistent with the specifications approved by Duke Energy, or should the Encroachment threaten any Duke Energy facility, then Grantee shall be liable to Duke Energy for any costs Duke Energy incurs while remedying actual or potential threats to Duke Energy's facilities arising from such work.

2. This Agreement shall automatically terminate upon complete removal of the Encroachment by Grantee. Should the encroachment no longer be required for the facility it is designed to serve, this Agreement shall be terminable by Duke Energy upon ninety (90) days written notice of Duke Energy's desire to terminate.

3. Duke Energy shall have the right to install at any time additional structures for the support of its present or future electric lines within the Easement Area. Duke Energy agrees to locate these additional structures, if reasonably possible, so as not to obstruct use of the Encroachment and in compliance with 15A NCAC 18A.1950.

4. Grantee may plant low-growing shrubbery on and around the Encroachment provided that Duke Energy shall have necessary access to its structures for maintenance purposes. Any trees or shrubs in the Easement Area shall not be permitted to reach a height of more than twelve (12) feet. If any such trees or shrubs do reach a height of more than twelve (12) feet, then Duke Energy shall have the right to remove them without removing the stumps if removal could damage system.

5. Grantee shall not place, or cause to be placed, a septic tank or any related device, constructed of any material type, in Duke Energy's Easement Area other than inert piping for septic draining purposes.

6. Grantee shall, upon request of Duke Energy and at no cost to Duke Energy, erect barriers around the Encroachment area or existing facilities owned or operated by Duke Energy. Barriers shall be of an acceptable size and construction to Duke Energy. Once installed to Duke Energy's specifications, Grantee shall not be liable for the costs of relocating or replacing any barrier that is later determined by Duke Energy to hinder its access to the facilities or Easement Area.

7. Grantee shall not utilize any equipment within Duke Energy's Easement Area in such a manner that any portion of said equipment would come any closer than fifteen (15) feet from any conductors of its electric lines. Grantee's operation of equipment and use of materials within Duke Energy's Easement Area shall adhere to applicable federal, state, and local laws, rules and regulations, including the guidelines set forth by the National Electrical Safety Code (NESC), the OSHA Standard for equipment minimum safe working distances, and the North Carolina Overhead High-Voltage Line Safety Act (OHVSA).

8. Grantee shall be liable for, and shall indemnify, protect, and save harmless Duke Energy from any taxes or assessments which may be levied for or as a result of the Encroachment.

9. Duke Energy shall not be liable for any damage to the Encroachment resulting from Duke Energy or its contractors in the construction, reconstruction, replacement, maintenance, or removal of Duke Energy's present or future facilities.

10. Grantee shall not do any digging, grading, or filling nearer than Five foot (5) to any of Duke Energy structures or anchors and any slopes within the Easement Area shall be no greater than a one to four ratio.

11. Grantee shall not do any filling or piling of earth on Duke Energy's Easement Area unless shown on the Map and approved by Duke Energy. The surface of the Easement Area shall be properly graded, raked, and seeded after construction of the Encroachments is complete.

12. Duke Energy may have facilities (e.g. counterpoise wires) buried in the vicinity of the Encroachment. Grantee shall exercise diligence to avoid damaging any underground facilities, will notify Duke Energy immediately if any damage does occur, and reimburse Duke Energy for the costs of any repairs made necessary by such damage.

13. The Encroachment is subject to the paramount right of Duke Energy at all times to make use of Duke Energy's entire Easement Area for the construction, maintenance, reconstruction, and operation of electric lines. In the future, Duke Energy may require, within the N.C.G.S. 130A statute and the 15A NCAC .1900 rules, the relocation or modification of the Encroachment, and Grantee shall comply with the demand at no cost to Duke Energy within ninety (90) days after receipt of the written demand.

14. This Agreement is effective only insofar as the easement rights of Duke Energy in the Easement Area are concerned; and Grantee shall obtain from others such permission and permits as may be necessary from third parties.

15. Grantee assumes all risks incident to the Encroachment and does hereby release and shall indemnify, defend, and save harmless Duke Energy, its officers, directors, employees, contractors, and agents from and against claims, damages, demands, legal or administrative actions (formal or informal), expenses (including reasonable attorney's fees and court costs), and liability (whether or not such liability has been judicially determined) for loss of or damage to property of Grantee, Duke Energy or others, (including environmental damages and hazardous or toxic waste cleanup) and injuries to or death of all persons, howsoever resulting, by reason of Grantee's use of the Encroachment.

16. The recitals set forth at the opening of this Agreement are incorporated herein as if fully restated in this Section 16.

17. Should Grantee desire or be required to contact Duke Energy for any reason related to this Agreement it shall contact Duke Energy's customer service center and request to speak to the land services group.

18. This Agreement shall be governed by the laws of the state of North Carolina without regard to the conflicts of law provisions therein. The parties agree that the proper venue for any dispute related to this agreement are the courts located in county in which the Property is located, and the parties hereby submit to the jurisdiction thereof.

19. This Agreement contains the complete understanding of the parties and shall supersede any prior and contemporaneous communications, agreements, and assurances related to the subject matter of this Agreement. Any modification of this Agreement must be agreed to in writing and signed by the parties. The parties agree that the Easement shall remain in full force and effect. The only modifications to the terms thereof, caused by the Agreement, shall be those which are expressly stated in this Agreement.

20. The failure of Duke Energy in any one or more instances to insist upon compliance with any provision or covenant herein or to exercise any right or privilege herein shall not constitute or be construed as a waiver of such or any similar provision or covenant.

21. This Agreement shall be recorded at Grantee's sole expense.

[Remainder of Page Left Intentionally Blank]

IN WITNESS WHEREOF, Duke Energy and Grantee have caused this Agreement to be signed under seal in their names, as of the date first above written.

DUKE ENERGY CAROLINAS, LLC (SEAL)
a North Carolina limited liability company

By: _____ (SEAL)
Name: Martha S Purser
Title: Manager Land Services

STATE OF ~~NORTH~~ South CAROLINA
COUNTY OF York

The foregoing document was acknowledged before me this 19 day of October 2021, by Martha S. Purser, as Manager Land Services of **DUKE ENERGY CAROLINAS, LLC**, a North Carolina limited liability company, who is personally known to me or who has produced License as identification.

Notary Public: _____ My Commission Expires: 01/23/2024

Printed Name: Erica Wood

[Affix Notary Seal Here]

Erica Wood
Notary Public
State of South Carolina
My Commission Expires January 23, 2024

IN WITNESS WHEREOF, Duke Energy and Grantee have caused this Agreement to be signed under seal in their names, as of the date first above written.

Christopher Chad Greene (SEAL)

Jennifer Nantz Greene (SEAL)

STATE OF NORTH CAROLINA
COUNTY OF IREDELL

The foregoing document was acknowledged before me this 13th day of OCTOBER 2021, by Christopher Chad Greene and Jennifer Nantz Greene, who is personally known to me or who has produced _____ as identification.

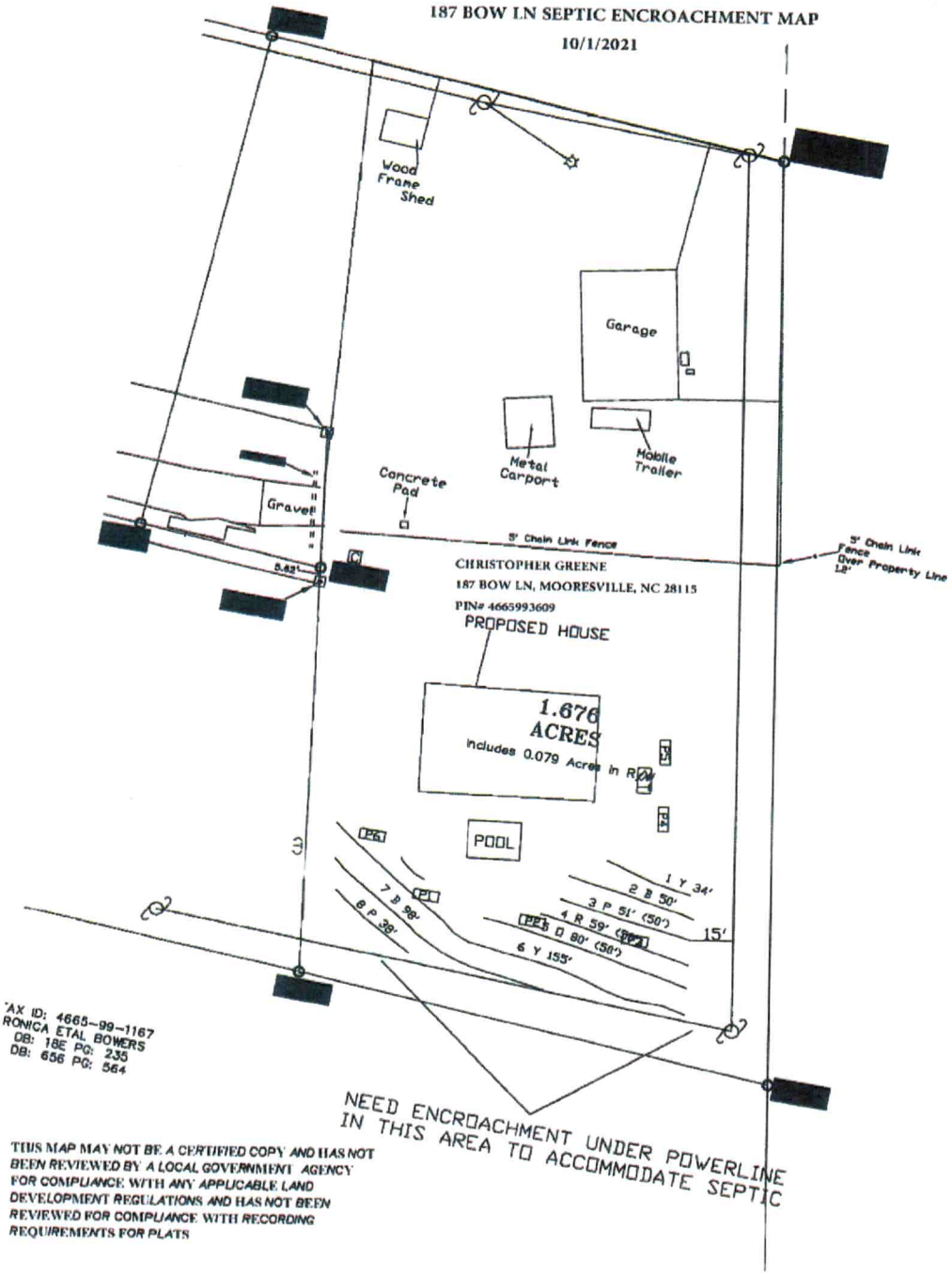
Notary Public: Terri P Brannon My Commission Expires: FEB 7, 2024

Printed Name: TERRI P BRANNON

[Affix Notary Seal Here]

TERRI P. BRANNON NOTARY PUBLIC IREDELL COUNTY, N. C.

EXHIBIT A


187 BOW LN SEPTIC ENCROACHMENT MAP
10/1/2021
Wood Frame Shed
Garage
Metal Carport
Mobile Trailer
Concrete Pad
Gravel
5' Chain Link Fence
5' Chain Link Fence Over Property Line
CHRISTOPHER GREENE
187 BOW LN, MOORESVILLE, NC 28115
PIN# 4665993609
PROPOSED HOUSE
1.676 ACRES
Includes 0.079 Acres in R/W
POOL
1 Y 34'
2 B 50'
3 P 51' (50')
4 R 59' (50')
5 O 80' (50')
6 Y 155'
7 B 98'
8 P 39'
15'
TAX ID: 4665-99-1167
RONICA ETAL BOWERS
DB: 18E PG: 235
DB: 656 PG: 564
NEED ENCROACHMENT UNDER POWERLINE IN THIS AREA TO ACCOMMODATE SEPTIC
THIS MAP MAY NOT BE A CERTIFIED COPY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS