IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # AP 312250

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

PIN # 4637-00-4957

APPLICANT/OWNER: B & G Properties | APPLICANT ADDRESS: 124C Fernwood Ln Mooresville, NC 28117

SITE ADDRESS: 124 Direct Drive Mooresville, NC 28117 | PHONE: 4237827633 | ALT. PHONE

SITE DIRECTIONS: Brawley School Rd TR Blume TL Beaten Path TL Direct Drive on rt | SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Lakeview Haven | SECTION: | LOT # 4 | LOT AREA: .699 Acres | DESIGN FLOW: 480gpd | L.T.A.R.: .3gpd

Septic Tank	1000 (gal)	STB	760	Date	11/15/21	[X] New System [ ] Repair [ ] Expansion	System Type: I II III IV V VI	[X] Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	363	Date	12/6/21	System Description:	LP - Panel Block	[ ] Business	No. Persons X
Pump Make	Zoeller	Model		Serial #		Repair System Description:	LP Panel Block	[ ] Other	No. Employees
# Nitrification Fields	1	# Lines	3	Linear Ft	267ft	Maintenance Agreement Required:	[X] YES [ ] NO	[ ] Slab	[ ] Crawl Space
Trench Width	24"	Trench Bottom Depth ~~(Low side)~~ high side	36"	Gravel Depth	N/A		[ ] GRAVITY [X] PRESSURE	[X] Basement w/plumbing	[ ] Basement w/o plumbing

Water Supply: [X] Private [ ] Public [ ] Community

Comments / Conditions:

Per plan by Soil & Forestry Services of the Carolinas

100ft lines 1.5" pipe
67ft line 1.25" pipe

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11.(c) of SL 2018-114 Using the Signed and Sealed LSS Evaluation attached here.

See plan by Soil & Forestry Services of the Carolinas
LSS# 1218

AS BUILT SKETCH

Rechecked tank locations 3.8.2022 JB

	Date	Initials
Drain Lines Checked	1/12/21	CW
Tanks Checked	1/12/21	CW
Pressure Manifold or Valve Box Checked	3/29/22	CW
Pressure Head Set	3/29/22	CW
Electrical Checked	4/6/22	MD
Floats Set	3/29/22	CW
Alarm Checked	4/4/22	MD
Maintenance Contract (Y) N		
Comments: Check drain over tanks		

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.* [X] IMPROVEMENT PERMIT *with site plan valid for 60 mos.* [X] AUTHORIZATION TO CONSTRUCT *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: [signature] Date:

Installed by: Jake Williams

IMPROVEMENT PERMIT by: Maria Dotson Date: 11/15/2021

OPERATION PERMIT by: Maria Dotson Date: 4/6/22

AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 11/15/2021

Existing System Inspected by: Date:

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # AP 312250

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

PIN # 4637-00-4957

APPLICANT/OWNER: B & G Properties | APPLICANT ADDRESS: 124C Fernwood Ln Mooresville, NC 28117

SITE ADDRESS: 124 Direct Drive, Mooresville, NC 28117 | PHONE: 4237827633 | ALT. PHONE

SITE DIRECTIONS: Brawley School Rd TR Blume TL Beaten Path TL Direct Drive on rt | SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Lakeview Haven | SECTION: | LOT # 4 | LOT AREA: .699 Acres | DESIGN FLOW: 480gpd | L.T.A.R.: .3gpd

Septic Tank	1000 (gal)	STB 760	Date 11/15/21	[X] New System [ ] Repair [ ] Expansion	System Type: I II III IV V VI	[X] Residence	No. Bedrooms 4	Water Supply
Pump Tank	1000 (gal)	PT 363	Date 12/6/21	System Description: LP - Panel Block		[ ] Business	No. Persons 8	[X] Private
Pump Make		Model	Serial #	Repair System Description: LP Panel Block		[ ] Other	No. Employees	[ ] Public
# Nitrification Fields	1	# Lines 3	Linear Ft 267ft	Maintenance Agreement Required: [X] YES [ ] NO		[ ] Slab	[ ] Crawl Space	[ ] Community
Trench Width	24"	Trench Bottom Depth (Low side) high side	36"	Gravel Depth N/A	[ ] GRAVITY [X] PRESSURE	[X] Basement w/plumbing	[ ] Basement w/o plumbing	

Comments / Conditions:

Per plan by Soil & Forestry Services of the Carolinas.

100ft lines 1.5" pipe
67ft line 1.25" pipe

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11.(c) of SL 2018-114 Using the Signed and Sealed LSS Evaluation attached here.

See plan by Soil & Forestry Services of the Carolinas.
LSS# 1218

AS BUILT SKETCH

Rechecked tank locations 3.8.2022 JBr

	Date	Initials
Drain Lines Checked	1/12/21	CW
Tanks Checked	1/12/21	CW
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Y / N		
Comments: Check drain over tanks		

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.* [X] **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: _____ Date: _____ Installed by: Jake Williams

IMPROVEMENT PERMIT by: Maria Dotson Date: 1/15/2021 OPERATION PERMIT by: _____ Date: _____

AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 1/15/2021 Existing System Inspected by: _____ Date: _____

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # AP 312250

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

PIN # 4637-00-4957

APPLICANT/OWNER: B & G Properties | APPLICANT ADDRESS: 124 C Fernwood Ln Mooresville, NC 28117

SITE ADDRESS: 124 Direct Drive Mooresville, NC 28117 | PHONE: 4237827633 | ALT. PHONE

SITE DIRECTIONS: Brawley School Rd TR Blume TL Beaten Path TL Direct Drive on rt | SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Lakeview Haven | SECTION: | LOT # 4 | LOT AREA: .699 Acres | DESIGN FLOW: 480gpd | L.T.A.R.: .3gpd

Septic Tank	1000 (gal)	STB	760	Date	11/15/21	[X] New System	[ ] Repair	[ ] Expansion	System Type: I II III IV V VI	[X] Residence	No. Bedrooms 4	Water Supply
Pump Tank	1000 (gal)	PT	363	Date	12/6/21	System Description:			LP - Panel Block	[ ] Business	No. Persons 8	[X] Private
Pump Make		Model		Serial #		Repair System Description:			LP Panel Block	[ ] Other	No. Employees	[ ] Public
# Nitrification Fields	1	# Lines	3	Linear Ft	267ft	Maintenance Agreement Required:	[X] YES	[ ] NO		[ ] Slab	[ ] Crawl Space	[ ] Community
Trench Width	24"	Trench Bottom Depth ~~(Low side)~~ high side	36"	Gravel Depth	N/A		[ ] GRAVITY	[X] PRESSURE		[X] Basement w/plumbing	[ ] Basement w/o plumbing	

Comments / Conditions:

Per plan by Soil & Forestry Services of the Carolinas.

100ft lines 1.5" pipe
67ft line 1.25" pipe

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11.(c) of SL 2018-114 using the signed and Sealed LSS Evaluation attached here.

See plan by: Soil & Forestry Services of the Carolinas.
LSS# 1218

AS BUILT SKETCH

Authorization to Construct
FOR SEPTIC FINAL INSPECTION
CALL 704-664-3703

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.* [X] **IMPROVEMENT PERMIT** ***with site plan*** *valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: _____ Date: _____ Installed by: Jake Williams

IMPROVEMENT PERMIT by: Maria Dotson Date: 1/15/2021 OPERATION PERMIT by: _____ Date: _____

AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 1/15/2021 Existing System Inspected by: _____ Date: _____

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 (Mooresville Office (704) 660-3625) PERMIT # AP 312250

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

PIN # 4637-00-4957

APPLICANT/OWNER: B & G Properties APPLICANT ADDRESS: 124 C Fernwood Ln Mooresville, NC 28117

SITE ADDRESS: 124 Direct Drive Mooresville, NC 28117 PHONE: 4237827633 ALT. PHONE

SITE DIRECTIONS: Brawley School Rd TR Blume TL Beaten Path TL Direct Drive on rt SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Lakeview Haven SECTION: LOT # 4 LOT AREA: .699 Acres DESIGN FLOW: 480gpd L.T.A.R.: .3gpd

Septic Tank	1000 (gal)	STB	760	Date	11/15/21	[X] New System	[ ] Repair	[ ] Expansion	System Type: I II III IV V VI
Pump Tank	1000 (gal)	PT	363	Date	12/6/21	System Description:		LP - Panel Block	
Pump Make	Zoeller	Model	RN/ST-5	Serial #		Repair System Description:		LP Panel Block	
# Nitrification Fields	1	# Lines	3	Linear Ft	267ft	Maintenance Agreement Required:	[X] YES	[ ] NO	
Trench Width	24"	Trench Bottom Depth (~~Low side~~) high side	36"	Gravel Depth	N/A		[ ] GRAVITY	[X] PRESSURE	

[X] Residence No. Bedrooms 4
[ ] Business No. Persons 8
[ ] Other No. Employees
[ ] Slab [ ] Crawl Space
[X] Basement w/plumbing [ ] Basement w/o plumbing

Water Supply: [X] Private [ ] Public [ ] Community

Comments / Conditions:

Per plan by Soil & Forestry Services of the Carolinas.

100ft lines 1.5" pipe
67ft line 1.25" pipe

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11.(c) of SL 2018-114 using the signed and Sealed LSS Evaluation ~~attached~~ here.

See plan by: Soil & Forestry Services of the Carolinas.
LSS# 1218

AS BUILT SKETCH

	Date	Initials
Drain Lines Checked	1/12/21	CW
Tanks Checked	1/12/21	CW
Pressure Manifold or Valve Box Checked	11/13/22	JLS
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Y/N		
Comments: Check drain over tanks		

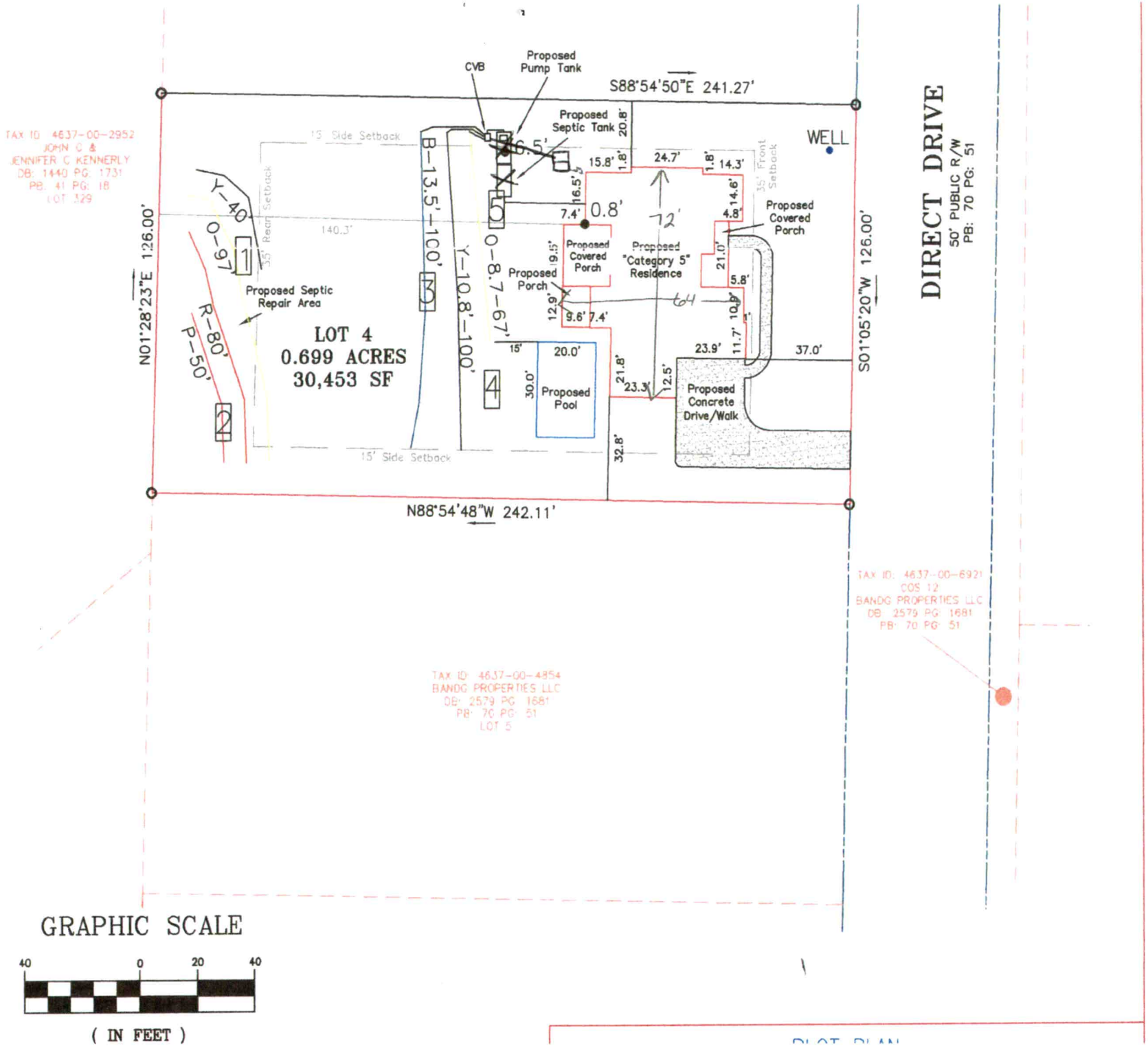
Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

[ ] **IMPROVEMENT PERMIT** *with plat valid without expiration.* [X] **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: _____ Date: _____ Installed by: Jake Williams

IMPROVEMENT PERMIT by: Maria DeLeon Date: 1/15/2021 OPERATION PERMIT by: _____ Date: _____

AUTHORIZATION TO CONSTRUCT by: Maria DeLeon Date: 1/15/2021 Existing System Inspected by: _____ Date: _____


CVB
Proposed Pump Tank
S88°54'50"E 241.27'
Proposed Septic Tank
WELL
TAX ID: 4637-00-2952
JOHN C &
JENNIFER C KENNERLY
DB: 1440 PG: 1731
PB: 41 PG: 18
LOT 329
15' Side Setback
35' Rear Setback
35' Front Setback
B-13.5'-100'
Y-10.8'-100'
Y-40
O-97
O-8.7-67'
140.3'
N01°28'23"E 126.00'
S01°05'20"W 126.00'
Proposed Septic Repair Area
R-80'
P-50'
LOT 4
0.699 ACRES
30,453 SF
Proposed Covered Porch
Proposed Porch
Proposed "Category 5" Residence
Proposed Covered Porch
Proposed Pool
Proposed Concrete Drive/Walk
15' Side Setback
N88°54'48"W 242.11'
DIRECT DRIVE
50' PUBLIC R/W
PB: 70 PG: 51
TAX ID: 4637-00-6921
COS 12
BANDG PROPERTIES LLC
DB: 2579 PG: 1681
PB: 70 PG: 51
TAX ID: 4637-00-4854
BANDG PROPERTIES LLC
DB: 2579 PG: 1681
PB: 70 PG: 51
LOT 5
GRAPHIC SCALE
40 0 20 40
(IN FEET)
PLOT PLAN

PROPERTY ID #: 4637004957
COUNTY: Iredell

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

OWNER: B & G Properties
ADDRESS:
PROPOSED FACILITY: New house
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: 124 Direct Drive
APPLICATION DATE
DATE EVALUATED: 10/27/2020
PROPERTY SIZE: .699
PROPERTY RECORDED:

WATER SUPPLY: x ☐ Private ☐ Public x ☐ Well ☐ Spring ☐ Other

EVALUATION METHOD: ☐ Auger Boring x ☐ Pit ☐ Cut

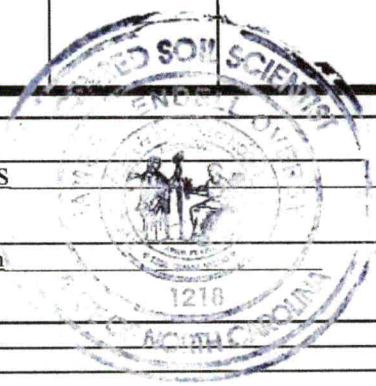
TYPE OF WASTEWATER: X☐ Sewage ☐ Industrial Process ☐ Mixed

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 SAP CLASS	.1944 RESTR HORIZ	
1	L / 30%	0-4	RB L WFGr	Fr SS SP	N/A	69	N/A		PS .3
		4-28	R C WMS	Fr SS SP					
		28-69	BR CL WFS	Fr SS SP few sap					
2	L / 30%	0-6	DB L WFGr	Fr SS SP	N/A	69	N/A		PS .3
		6-10	BR CL WFS	Fr SS SP					
		10-24	R C WMS	Fr SS SP					
		24-69	BR CL WMS	Fr SS SP few sap					
3	L / 30%	0-8	B CL WFGr	Fr SS SP	N/A	48	PS		PS .3
		8-30	BR C WFS/A	Fr SS P					
		30-48	RB CL WFS	Fr SS SP few sap					
		48-72	YB LWMS/M	VFr NS NP					
4	L / 30%	0-5	DB CL WMGr	Fr SS SP	N/A	50	50		PS .3
		5-24	R C WFS/A	Fr SS SP					
		24-40	BR CL WFS	Fr SS SP few sap					
		40-74	YB L WFS/M	Fr SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	267	267
System Type(s)	VPPBPS	VPPBPS
Site LTAR	.3	.3

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

EVALUATED BY: Overby
OTHER(S) PRESENT: Joe Thompson



COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

PROPERTY ID #: 4637004957
DATE OF EVALUATION: 10/27/2020
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	L / 30%	0-5	DB CL WMGr	Fr SS SP	N/A	36	PS		PS .3
		5-24	R C WFS/A	Fr SS SP					
		24-36	YR CL WMA	Fr SS SP c sap					
		36-75	YB L WFS/M	VFr NS NP few rock					

COMMENTS: _____

PPBPS LPP DOSED SYSTEM
FOR WASTEWATER TREATMENT

Applicant:	B AND G PROPERTIES, LLC
Phone:	423 782-7633
County:	Iredell
Location:	124 Direct Drive

Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	480 gpd
System Flow:	25.01 gpm

Design Specifications

Drainfield Size:	267 lf
Loading Rate:	0.3 gpd/ft.^{2}
Depth of Gravel in Trench:	n/a
Gravel Size:	n/a
Trench Depth:	36 in
Trench Width:	24 in
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	5 lf
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	0.85 gal
Dosing Volume:	219.60 gal

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:	0.06 ft
Elevation Head:	4.00 ft
Total Dynamic Head:	6.66 ft
Threaded Union:	In tank
Gate Valves:	1 in tank; 1 per lateral
Check Valves:	1 in tank
Anti-Siphon Hole:	Yes

124 Direct Drive

LPP PPBPS Design

DESIGN FLOW:	480	gpd
SOIL APPLICATION RATE:	0.3 gpd/ft.^{2}	
TOTAL AREA TRENCH BOTTOM:	534	sf
TOTAL LATERAL LENGTH:	267	lf
NUMBER OF FIELDS:	1	
LATERAL LENGTH REQUIRED PER FIELD:	267	lf
SUPPLY LINE LENGTH:	5	lf
TOTAL DYNAMIC HEAD:	6.66	gpm
DOSING VOLUME:	219.60	gal
PUMP TANK DRAW DOWN*:	10.5	in
SEPTIC TANK SIZE:	1000	
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.*

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 (Mooresville Office (704) 660-3625) PERMIT # AP 312250

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

PIN # 4637-00-4957

APPLICANT/OWNER: B&G Properties APPLICANT ADDRESS: 124C Fernwood Ln Mooresville, NC 28117

SITE ADDRESS: 124 Direct Drive Mooresville, NC 28117 PHONE: 4237827633 ALT. PHONE

SITE DIRECTIONS: Brawley School Rd TR Blume TL Beaten Path TL Direct Drive on rt SAP CONTROLLED: [X] YES [ ] NO

SUBDIVISION: Lakeview Haven SECTION: LOT # 4 LOT AREA: .699 Acres DESIGN FLOW: 480gpd L.T.A.R.: .3gpd

Septic Tank	1000 (gal)	STB	760	Date	11/15/21	[X] New System	[ ] Repair	[ ] Expansion	System Type: I II III IV V VI	[X] Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	3603	Date	12/6/21	System Description:			LP - Panel Block	[ ] Business	No. Persons 8
Pump Make		Model		Serial #		Repair System Description:			LP Panel Block	[ ] Other	No. Employees
# Nitrification Fields	1	# Lines	3	Linear Ft	267ft	Maintenance Agreement Required:		[X] YES	[ ] NO	[ ] Slab	[ ] Crawl Space
Trench Width	24"	Trench Bottom Depth ~~(Low side)~~ high side	36"	Gravel Depth	N/A			[ ] GRAVITY	[X] PRESSURE	[X] Basement w/plumbing	[ ] Basement w/o plumbing

Water Supply: [X] Private [ ] Public [ ] Community

Comments / Conditions:

Per plan by Soil & Forestry Services of the Carolinas.

100ft lines 1.5" pipe
67ft line 1.25" pipe

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11.(c) of SL 2018-114 using the signed and sealed LSS Evaluation attached here.

See plan by: Soil & Forestry Services of the Carolinas.
LSS# 1218

AS BUILT SKETCH

	Date	Initials
Drain Lines Checked	1/12/21	CW
Tanks Checked	1/12/21	CW
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Y / N		
Comments: Check drain over tanks		

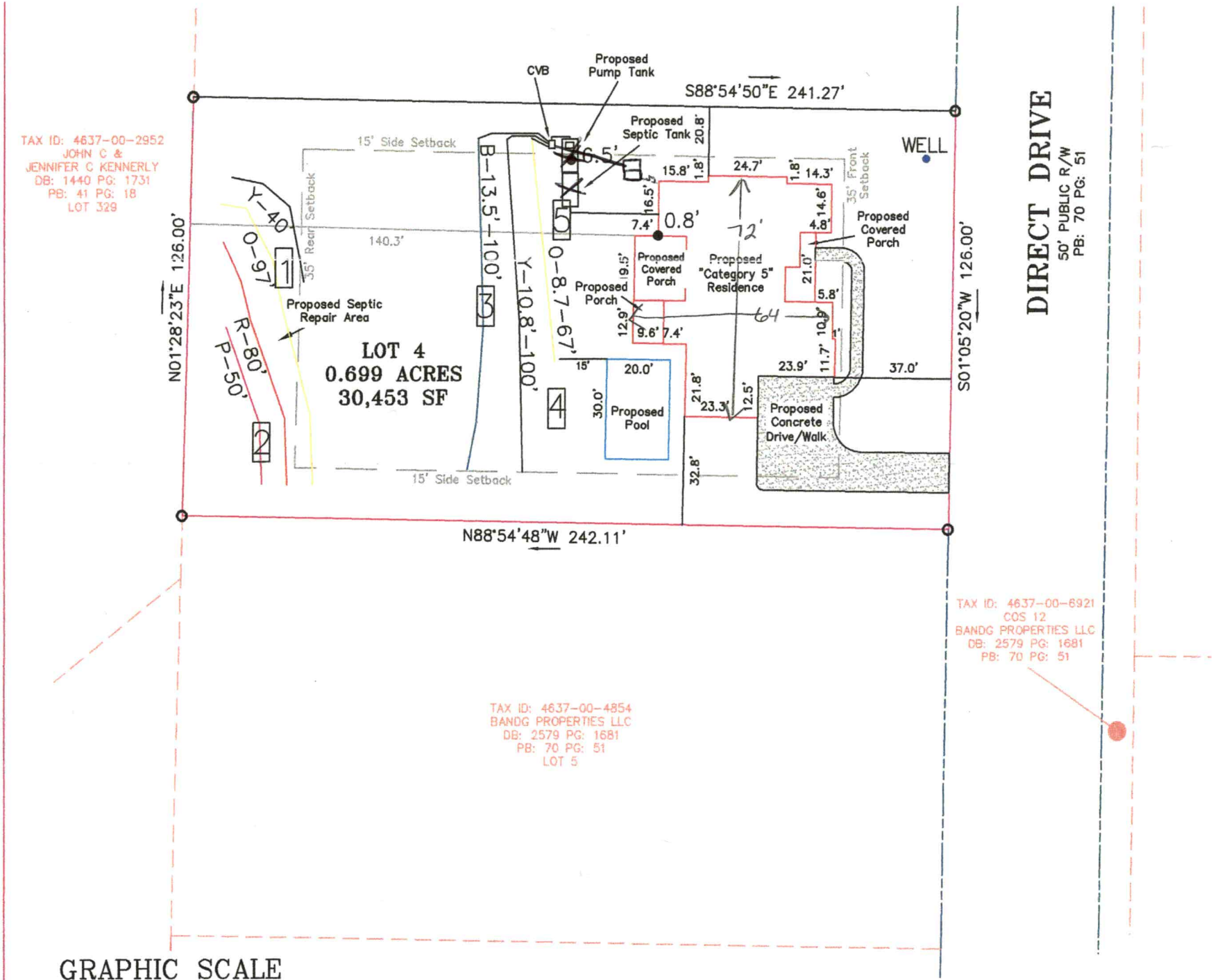
Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

[ ] **IMPROVEMENT PERMIT** *with plat valid without expiration.* [X] **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* [X] **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: Date: Installed by: Jake Williams

IMPROVEMENT PERMIT by: Maria Dotson Date: 1/15/2021 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 1/15/2021 Existing System Inspected by: Date:



GRAPHIC SCALE

40 0 20 40

(IN FEET)

PPBPS LPP DOSED SYSTEM
FOR WASTEWATER TREATMENT

Applicant:	B AND G PROPERTIES, LLC
Phone:	423 782-7633
County:	Iredell
Location:	124 Direct Drive

Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	480 gpd
System Flow:	25.01 gpm

Design Specifications

Drainfield Size:	267 lf
Loading Rate:	0.3 gpd/ft.^{2}
Depth of Gravel in Trench:	n/a
Gravel Size:	n/a
Trench Depth:	36 in
Trench Width:	24 in
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	5 lf
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	0.85 gal
Dosing Volume:	219.60 gal

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:	0.06 ft
Elevation Head:	4.00 ft
Total Dynamic Head:	6.66 ft
Threaded Union:	In tank
Gate Valves:	1 in tank; 1 per lateral
Check Valves:	1 in tank
Anti-Siphon Hole:	Yes

124 Direct Drive

LPP PPBPS Design

DESIGN FLOW:	480	gpd
SOIL APPLICATION RATE:	0.3 gpd/ft.^{2}	
TOTAL AREA TRENCH BOTTOM:	534	sf
TOTAL LATERAL LENGTH:	267	lf
NUMBER OF FIELDS:	1	
LATERAL LENGTH REQUIRED PER FIELD:	267	lf
SUPPLY LINE LENGTH:	5	lf
TOTAL DYNAMIC HEAD:	6.66	gpm
DOSING VOLUME:	219.60	gal
PUMP TANK DRAW DOWN*:	10.5	in
SEPTIC TANK SIZE:	1000	
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.*

124 Direct Drive

Layout for a 4 bedroom home **Jan 2021**

LINE #	FLAG COLOR	BS	HI	FS	ELEV	FLAGGED LENGTH	DESIGN LENGTH
TBM			0.8		100.8		
Back Rt House Crnr				0.80	100.0		
TANK				6.50	94.3		
			SYSTEM				
1	Orange			8.70	92.1	67	67
2	Yellow			10.80	90.0	104	100
3	Blue			13.50	87.3	104	100
			REPAIR				
4	Pink					50	50
5	Red					80	80
6	Orange					97	97
7	Yellow					40	40

	LINE LENGTH	LTAR GPD/FT	SYSTEM TYPE	REDUCTION TYPE	DIST	TRENCH DEPTH
SYSTEM	267	0.300	PPBPS	50%	LPP	36 (high side)
REPAIR	267	0.300	PPBPS	50%	LPP	36 (high side)

Notes:

**TBM is assumed to be 100'
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags
**BS and FS indicate rod readings

124 Direct Drive

SYSTEM FLOW

DESIGN SPECIFICATIONS

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench A	Number of Panels
1	ORNG	92.1	67	0.156	0.41	134	15
2	YELO	90	100	0.156	0.41	200	23
3	BLUE	87.3	100	0.156	0.41	200	23
							61
	total	feet =	267	gal/min =	25.01		
			Des. Flow	480			
			Pump Run=	8.78			
			soil LTAR	0.3			
			LTAR with mod.	0.6			

.156 equals 5/32 inch hole

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

January 6, 2021

Iredell County Environmental Health
Attn: Heath Snow
349 N Center Street
Statesville, NC 28677

Re: Session Law 2018-114 Submittal for Lakeview Haven Subdivision-Mooresville

Lot 4-124 Direct Drive

Mr. Snow,

Attached please find sealed soil notes as well as site plans and design related data for a 4-bedroom vertical panel block system using LPP distribution. The design packet is submitted under Session Law 2018-114 (HB 374).

"The LSS Evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with SL 2018-114 Section 11.(c)."

Owner: B&G Properties c/o Chad Bacon:

Signature:_____

"The LSS Evaluation is being submitted pursuant to and meets requirements of SL 2018-114 Section 11.(c)."

Wendell Overby, LSS

Signature: Wendell Overby

Seal:



Four (4) Bedroom PPBPS Septic System Design using
LPP Distribution for Lot 4 of Lakeview Haven Subdivision
124 Direct Drive

Contents: **Page**

Information for the Installer---------- 1

Design Information
- Design Specifications---------- 2-3
- Layout Specifications---------- 4
- System Flow---------- 5

Site Plan---------- 6

Calculations---------- 7

LPP Trench Schematics---------- 8-9

Profile Descriptions---------- 10-11

Iredell County Septic Application---------- 12-13

Environmental Health Requirements---------- 14

Iredell County Zoning Permit---------- 15

Agent Authorization---------- 16

Owner: BANDG PROPERTIES, LLC
c/o Chad Bacon 423 782-7633
January 2021
Job #20-1069
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 DHH, and certification supplied by the manufacturer.
- 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
- 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.
- Elevations at pinflag locations should be checked by the installer prior to beginning
- Septic tank riser shall be a minimum of 6" above finished grade.
- **System specified as VPPBPS with LPP distribution**
- **Repair specified as VPPBPS with LPP distribution**
- **System trenches installed on 8' minimum; 2' wide trenches**
- **Rake and lime as per manufacturer's specs**

CALCULATIONS

Location Lakeview Haven

Project Number 20-1069

Lot No:	4	
No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.3	$^{gal}/_{ft^2\ day}$
Accepted? (YES OR NO)	no	
Supply Line Length	5	ft.
Supply Line Volume	0.85	gal.
Required Feet of Line	267	ft.
Amount of Line from Layout	267	ft.
Gallons per Minute	25.01	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal
# of Panels	61	
Dosing Volume	219.60	gal.
Tank Draw Down	10.5	in.
	Generic Draw Down of 21 gal.per in.	
Pump Run Time	8.78	minutes
Elevation Head	4	ft.
Pressure Head	2	ft.
Friction Factor	1.27	ft./100 ft. *(From the interpolater.)*
Friction Head	0.06	ft.
Elevation Head +15%	4.6	
Total Dynamic Head	6.66	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
27.4	1.51
30	1.78
	-1.76
35	2.37
37	2.63
40	3.03
42.7	3.43
45	3.77
46.51	4.01
50	4.58
57.11	5.89
60	6.42

124 Direct Drive

SYSTEM FLOW

DESIGN SPECIFICATIONS

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench A	# Panels	Lateral Size Sch 40
1	ORNG	92.1	67	0.156	0.41	134	15	1.25"
2	YELO	90	100	0.156	0.41	200	23	1.5"
3	BLUE	87.3	100	0.156	0.41	200	23	1.5"
							61	
	total	feet =	267	gal/min =	25.01			
			Des. Flow	480				
			Pump Run=	8.78				
			soil LTAR	0.3				
			LTAR with mod.	0.6				

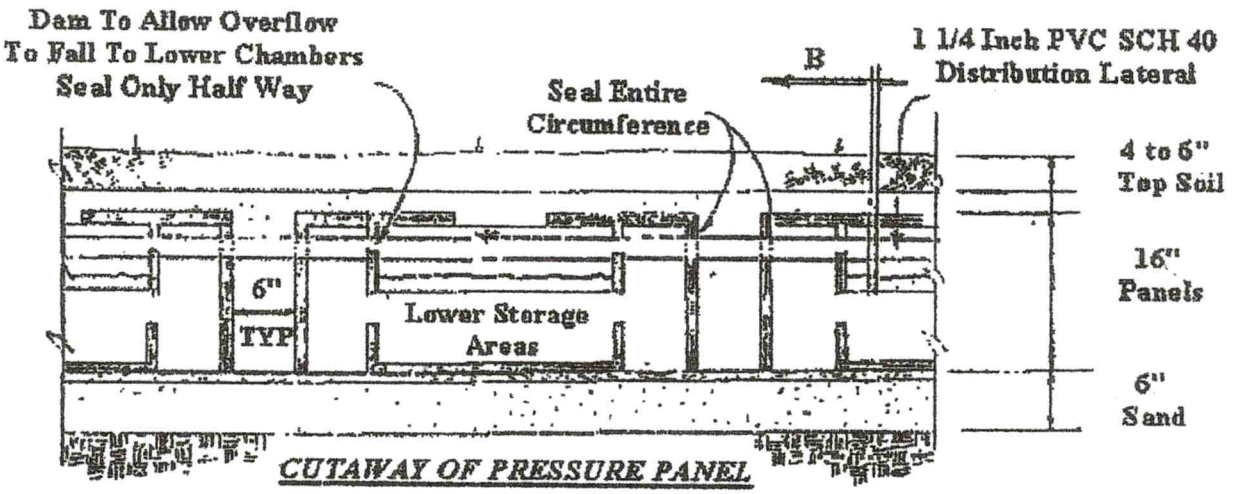
.156 equals 5/32 inch hole

Panels With Pressure Distribution

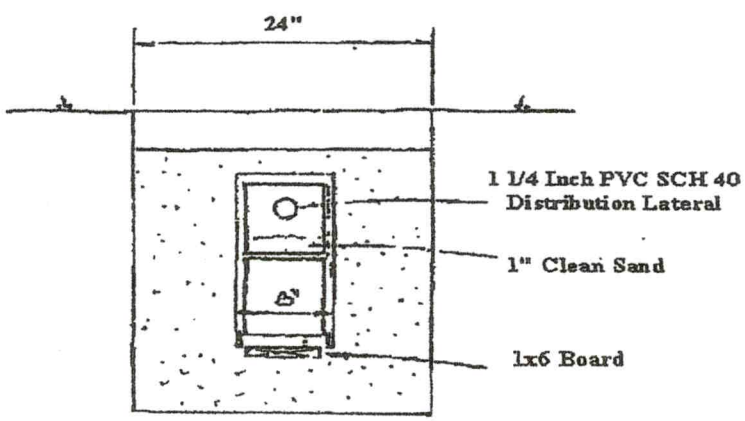
The LP Panel uses technology similar to that of Low Pressure Pipe (LPP) Systems. The tables and distribution design described in the LPP manual is applicable to the pressure Panel System. The system should be used with two to four feet of head. In many respects a LP Panel is similar to a LPP with the holes discharging into the panels.

The dosing cycle for the Panel System is designed to pump enough effluent to fill the top chambers of all the panels in the system. The top chamber of a 16 inch panel holds 3.6 gallons. When the system has 34 panels and all holes are the same size, then you would multiply 34 X 3.6 to get 122 gallons per dose cycle. The holes are drilled in the distribution pipe at the 10 and the 2 o'clock position. These are then placed so that the effluent is pumped into the top chamber of the panel. If the hole sizing changes in the system the pump cycle is set by the hole that is discharging the fastest.

All valves and turn-ups should be neatly capped, covered and labeled for future service. Pump tanks should be constructed as shown in the drawing on page 12 to allow for service and repairs.



CUTAWAY OF PRESSURE PANEL



IREDELL COUNTY · NC

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

APPLICATION NUMBER
312250 Issue Date:

Permit Type: ZONING

Parcel Number	Street Address	Jurisdiction
4637004957.000	124 DIRECT DR	Iredell County

Owner Information	Applicant Information
Name: BANDG PROPERTIES LLC Address: Phone:	Name: WENDELL OVERBY Address: PO BOX 832 MOORESVILLE, NC 28115 Phone: (704)239-2001

Use Requested	Zone Code
Single Family Dwelling	R20

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
0.699	35	35	15	15	WSIV-CA Catawba/Lake Norman	NO

Remarks
SFD

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.

Wendell Overby
Signature of Owner/Contractor

Date: 10/30/2020

Permit Number	312250	TOTAL FEES:	$77.25

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

(Check and sign only ONE of the options below)

☐ **1. * APPLICANT AND OWNER ARE THE SAME. *** (*Sign here*) _____

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative: *Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship* In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:
Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form. If there are multiple property owners, then all property owners must sign the form that designates a legal representative.
By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

☒ **2.** I, Bacon Development LLC Chad Bacon, am the legal owner(s) of the property located at 124 DIRECT DRIVE, identified as PIN (Parcel Identification Number) 4637004957, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) WENDELL OVERBY _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

_____ 1-7-21
Signature of Owner(s) Date

Mooresville - Environmental Health
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

Statesville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

RECEIVED JAN 1 2 2020

APPLICATION MUST BE FILLED OUT COMPLETELY & BE LEGIBLE OR IT WILL NOT BE PROCESSED

S.L. AP-31 2250 $500.00

Iredell County Health Department – Environmental Health Division

PAGE 1: *APPLICATION FORM*

Application For: (X) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(X) Septic Improvement Permit (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: (X) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable (X) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information: (PRINT CLEARLY)

Applicant Name: BANDG PROPERTIES, LLC **Address:** 124C FERNWOOD LN MOORESVILLE **Zip:** 28117

Applicant Email: CHADC CRESENTCDS.COM **Phone:** (423) 782-7633 **Alt. Phone:**

Owner Name: SAME **Address:** **Zip:**

Owner Email: **Phone:** **Alt. Phone:**

Property Information:

Street Address: 124 DIRECT DRIVE MOORESVILLE

Subdivision Name: LAKEVIEW HAVEN **Section/Phase:** **Lot Number:** 4

Driving Directions: BRAWLEY SCHOOL → BLUME → BEATON PATH → DIRECT DRIVE

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

CHECK FOUNDATION TYPE

(X) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem:

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

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

Non-Residential Site Development: Type of Business:
Square Footage of Building: Max. Number of Employees: Max. Number of Seats/Beds/Other:

Water Supply: ( ) Replacement Well – Reason:
( ) Multi-connection Well Number of Houses: Number of Persons:

(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 (X) 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: Wendell Cly 1/7/21

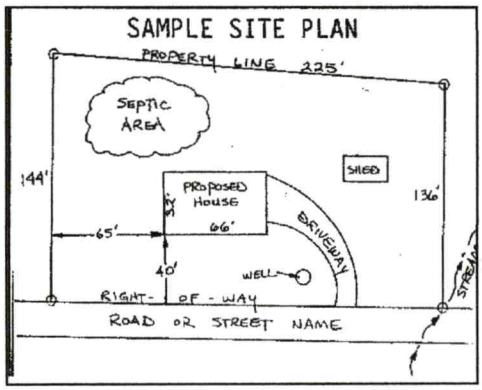
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

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:

- (X) **Property Line measurements are clearly identified**
- (X) **All proposed structures are indicated**
- (X) **Front and side setbacks from property line**
- (X) **Preferred driveway location and well location**
- (X) **Area you prefer your septic system to be placed**
- (X) **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

USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

SEE ATTACHED PLANS

Signature: WCG

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

1/7/21

DATE