Relocation

ICHD - ENVIRONMENTAL HEALTH DIVISION

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

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

PERMIT # OSWP-2022-5758

PIN # 4664-88-7457

APPLICANT / OWNER: BENEFIELD OUTDOOR SERVICES & SOLUTIONS APPLICANT ADDRESS: 939 Brawley School Rd, Mooresville, NC 28117

SITE ADDRESS: 140 RIVERSTONE DR, DAVIDSON, NC 28036 PHONE: 7043600376 ALT. PHONE:

SITE DIRECTIONS: L Anniston -> R Burnell -> Walking Horse -> L Riverstone -> lot on R

SUBDIVISION: Riverstone SECTION: LOT #: 20 LOT AREA: 1.297 DESIGN FLOW: 480 SAP CONTROLLED: YES ☐ NO ☑ L.T.A.R.: 0.3

Septic Tank: 1000 (gal)	STB:	Date:	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 4	Water Supply: Existing Well
Pump Tank: 1000 (gal)	PT:	Date:	System Description: Existing chambers + 102' 25% Reduction		☐ Business	No. Persons: 8	
Pump Make:	Model:	Serial #:	Repair System Description: LPPBPS		☐ Other	No. Employees: 0	
# Nitrification Fields: 1	# Lines: 3 New	Linear Ft.: 102	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
Trench Width: 36	Trench Bottom Depth ([redacted]): 28 MAX		Gravel Depth: 0	☐ GRAVITY ☒ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions: See all design specifications as attached. Any variation from installation as drawn will cause permit to be revoked - very little room for alterations without moving the building. Power line easement must be marked at time of installation.

INITIAL SITE SKETCH

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

Miranda Stamper LSS

LSS# 1258

AS BUILT SKETCH

11-29-2022 BCM
LINES INSTALLED AS SHOWN
- PH - Floats - Alarm -

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

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

Owner / Applicant Signature: Date:

IMPROVEMENT PERMIT by: D.Wieben Date: 11/3/22

AUTHORIZATION TO CONSTRUCT by: D.Wieben Date: 11/3/22

Installed By: BOSS 5440

OPERATION PERMIT by: Date: 12-7-2022

Existing System Inspected By: Date:

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

Relocation

ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # OSWP-2022-5758

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

PIN # 4664-88-7457

APPLICANT / OWNER: BENEFIELD OUTDOOR SERVICES & SOLUTIONS APPLICANT ADDRESS: 939 Brawley School Rd, Mooresville, NC 28117

SITE ADDRESS: 140 RIVERSTONE DR, DAVIDSON, NC 28036 PHONE: 7043600376 ALT. PHONE:

SITE DIRECTIONS: L Anniston -> R Burnell -> Walking Horse -> L Riverstone -> lot on R SAP CONTROLLED: YES ☐ NO ☑

SUBDIVISION: Riverstone SECTION: LOT #: 20 LOT AREA: 1.297 DESIGN FLOW: 480 L.T.A.R.: 0.3

Septic Tank: 1000 (gal)	STB:	Date:	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 4	Water Supply: Existing Well
Pump Tank: 1000 (gal)	PT:	Date:	System Description: Existing chambers + 102' 25% Reduction		☐ Business	No. Persons: 8	
Pump Make:	Model:	Serial #:	Repair System Description: LPPBPS		☐ Other	No. Employees: 0	
# Nitrification Fields: 1	# Lines: 3 New	Linear Ft.: 102	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
Trench Width: 36	Trench Bottom Depth ([redacted]): 28 MAX		Gravel Depth: 0	☐ GRAVITY ☒ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions: See all design specifications as attached. Any variation from installation as drawn will cause permit to be revoked - very little room for alterations without moving the building. Power line easement must be marked at time of installation.

INITIAL SITE SKETCH

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

Miranda Stamper LSS

LSS# 1258

AS BUILT SKETCH

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

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

Owner / Applicant Signature: Date: Installed By:

IMPROVEMENT PERMIT by: D.Wiebers Date: 11/3/22 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: D.Wiebers Date: 11/3/22 Existing System Inspected By: Date:

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

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 10/31/22 (Date) by DW (Initials)

Permit Number: OSWP-2022-5758

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

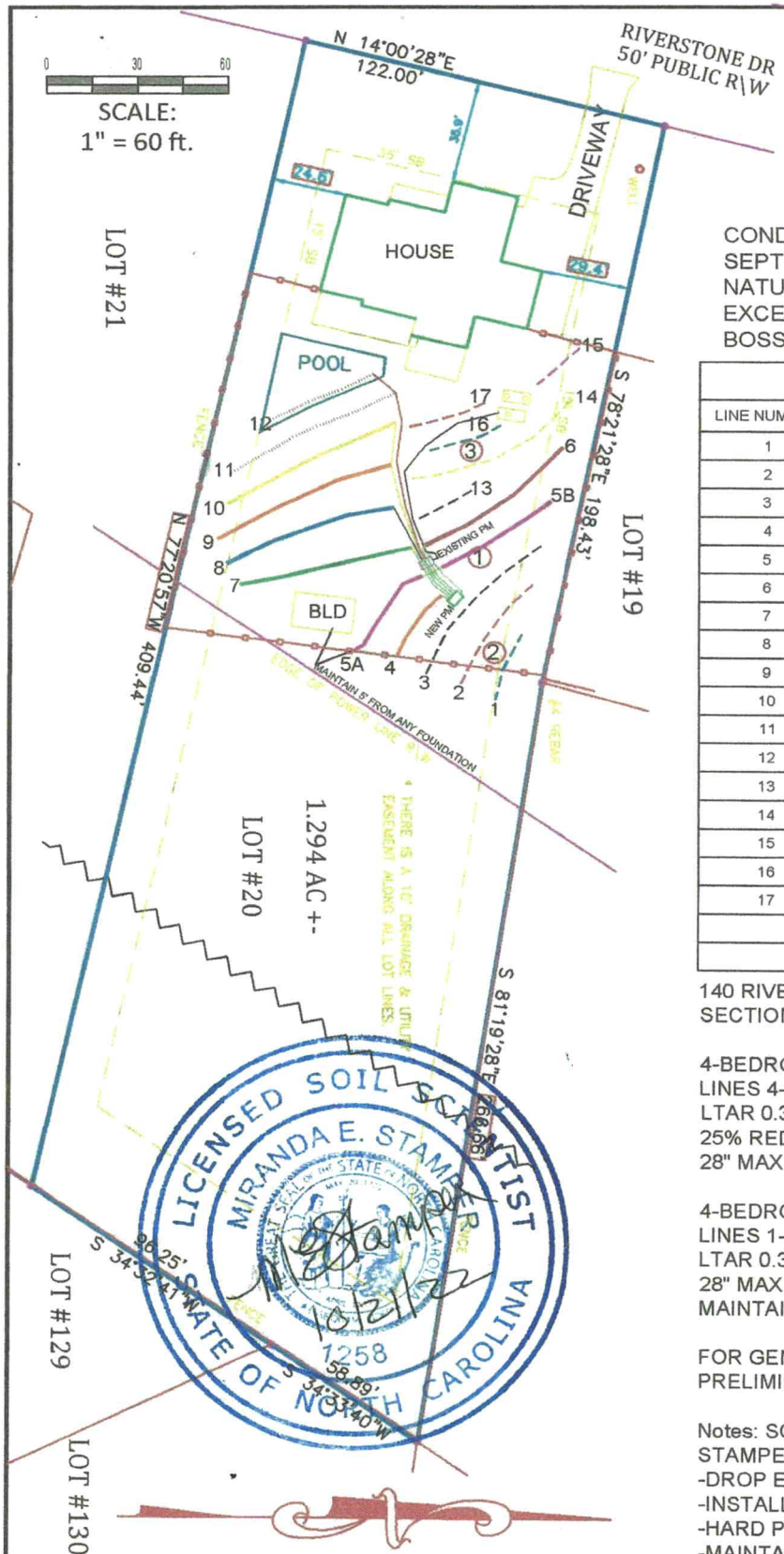
State Authorized Agent: D. Mieberg Date of Issuance: 11/4/22

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: _____

See attached site sketch



ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

CONDITIONS: MUST BE INSTALLED BY A LICENSED SEPTIC INSTALLER. DRAINFIELD AREA MUST MAINTAIN NATURAL CONTOURS & SLOPE. IMPROPER OR EXCESSIVE GRADING WILL VOID THIS DESIGN AND BOSS IS NOT LIABLE.

LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	BLUE	0.5	24	0
2	RED	1.2	42	0
3	WHITE	1.6	60	0
4	ORANGE	2.1	27	26
5	PINK	2.6	86	76
6	RED	3.4	58	58
7	GREEN	3.4	58	58
8	BLUE	4.3	58	58
9	ORANGE	5.4	66	66
10	YELLOW	6.1	66	66
11	GREEN	7.2	60	0
12	PINK	7.9	38	0
13	WHITE	4.0	20	0
14	YELLOW	4.7	62	0
15	PINK	6.1	19	0
16	BLUE	5.4	25	0
17	RED	6.3	25	0
			TOTAL	TOTAL
			794	408

140 RIVERSTONE DRIVE, MOORESVILLE, NC 28117
SECTION -, LOT 50 ANNISTON

4-BEDROOM PRESSURE MANIFOLD TO ACCEPTED SYSTEM
LINES 4-5B & 6-10 TOTAL 408 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
28" MAX TRENCH BOTTOM

4-BEDROOM LP PANEL BLOCK SYSTEM
LINES 1-3 & 13-17 TOTAL 277'
LTAR 0.3
28" MAX TRENCH BOTTOM (COVER MAY BE REQUIRED TO MAINTAIN 6" OF COVER)

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-DROP EXISTING LINES #11 & 12
-INSTALL LINE # 4 AND 5
-HARD PIPE BETWEEN LINE 5&5A FOR SUPPLY LINES
-MAINTAIN SETBACKS FROM PROPOSED POOL

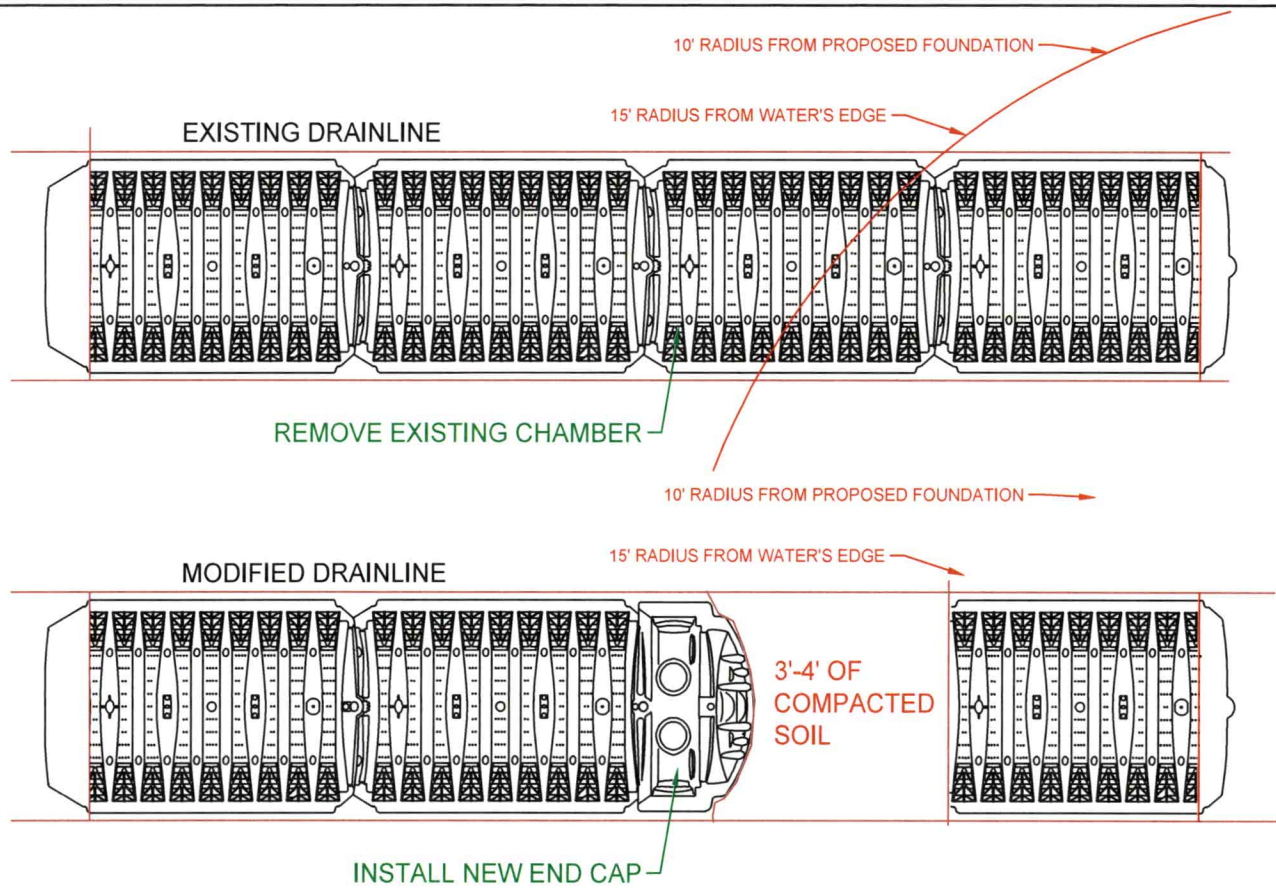
BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
info@yardsbyboss.com

CHAMP CLARIS

LOT 20
ANNISTON SUBDIVISION
MOORESVILLE, NC
IREDELL COUNTY

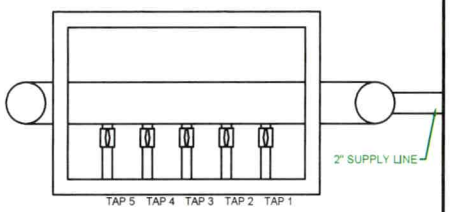
DATE: 10/21/22 DRAWN BY: MDB CHECKED BY: MES

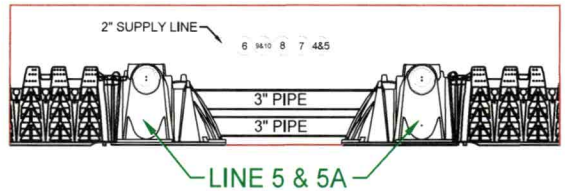


PRESSURE MANIFOLD SPECS

TAP 1 1/2in SCH 80
TAP 2 3/4in SCH 40
TAP 3 1/2in SCH 80
TAP 4 1/2in SCH 80
TAP 5 3/4in SCH 80

TAP 1 LINES 4, 5
TAP 2 LINE 7
TAP 3 LINE 8
TAP 4 LINES 9, 10
TAP 5 LINE 6





BOSS

BENFIELD OUTDOOR SERVICES & SOLUTIONS
939 BRAWLEY SCHOOL RD, MOORESVILLE NC 28117
(704) 360-0376

MODIFICATION FOR Q4 CHAMBER
POOL'S WATER'S EDGE SETBACK

Drawn by: MDB	JOB # 1740	Date: 10/11/2022
Scale: NOT TO SCALE	Checked by: MDB	Sheet: 1 of 1

1

Sheet 1 of 1
PROPERTY ID #:
COUNTY: Iredell

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

OWNER: _____ Lot # 20 APPLICATION DATE: _____
ADDRESS: 140 Rivrstone Dr DATE EVALUATED: 8/31/2022
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE: _____
LOCATION OF SITE: _____ 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)		OTHER PROFILE FACTORS				
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B1	3-4% L	0-12	SBK CL	SS SP FI	-	48"+	*36"	-	0.3 GAL/DAY/FT2
		12-27	SBK C	S P FU					
		27-36	SBK CL	SS SP FI					
		36-48	WSBK CL	NS NP FR					
B2	3-4% L	0-14	SBK SL	SS SP FI	-	40"+	*40"	-	0.3 GAL/DAY/FT2
		14-29	SBK C	S P FI					
		29-40	SBK CL	SS SP FI					
		40	WSBK SL	SS NP FR					
B3	3-4% L	1-10	SBK CL	SS SP FI	-	42"+	*36"	-	0.3 GAL/DAY/FT2
		10-36	SBK C	S P FI					
		36-42	WSBK CL	NS NP FR					

140 Riverstone Drive
SYSTEM TAP CHART

Bench Mark:	0	= 100.00	**Manifold elev:**	3.00	
Pump tank elevation:	6.00		**Pump elev:**	0.60	

line	color	rod read	elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
6	Red	3.40	96.60	58	1/2in SCH 80	5.48	67.38	174	0.3872
9, 10	Orange, Yellow	5.40	94.60	132	3/4in SCH 40	12.5	153.69	396	0.3881
8	Blue	4.30	101.70	58	1/2in SCH 80	5.48	67.38	174	0.3872
6	Green	3.40	96.60	58	1/2in SCH 80	5.48	67.38	174	0.3872
4, 5	Orange, Pink	2.10	97.90	102	3/4in SCH 80	10.1	124.18	306	0.4058
	P-TANK	12.00	88.00						
		total	**feet =**	**408**	**gal/min =**	**39.04**		**LTAR =**	**0.300**

	Des. Flow	480	**(ltar + 5%)** 0.32
	24 Hour Pump Run=	12.30	**(ltar W/ INOV)** 0.40
			(ltar + 5%) 0.42

PG3

Comments:

Existing taps may vary from specs. Installer must match new taps to current for equal distribution

140 Riverstone Drive

Layout/Design Specifications

Facility Type:	Single Family Home		
# of Bedrooms:	4		
Daily Flow:	480	**gal/day**	
L.T.A.R.:	0.300	**gal/day/sq.ft**	
MAX Trench Depth:	28	**in**	
Trench Width:	36	**in**	
Stone Depth:	n/a	**in**	
Manifold Length:	42	**in**	
Manifold Diameter:	6	**in sch 80pvc**	
Supply Line Length:	110	**ft**	
Supply Line Diameter:	2	**in sch 40pvc**	
Supply Line Volume:	16.18	**gallons**	
Friction Loss + Fitting Loss:	1.42	**ft(supply line length + 70' for fittings in pump tank)**	
Design Head:	2	**ft**	
Elevation Head:	9.00	**ft**	
Total Head:	12.42	**ft**	
Dose Volume:	199.14	**gals**	
% of Pipe Vol.	.75		
Drawdown:	9.88	**in @ 20.16 gal/in**	
Pump Run Time:	7.97	**Minutes**	
Control Panel:	SJE Rhombus Model112 control panel (or approved equivalent)		
Pump:	Zoeller5032-0008 High Flow (or approved equivalent)		
Septic Tank Effluent Filter:	Zoeller 170-0144 residential effluent filter (or approved equivalent)		
Existing **Septic Tank:**	1000	**gallon Shoaf**	PG2
Existing **Pump Tank:**	1000	**gallon Shoaf**	

140 Riverstone Drive
SYSTEM TAP CHART

Bench Mark:	0	= 100.00	**Manifold elev:**	1.80	
Pump tank elevation:	6.00		**Pump elev:**	10.00	

line	color	rod read	elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
6	Red	3.40	96.60	58	1/2in SCH 80	5.48	67.38	174	0.3872
9, 10	Orange, Yellow	5.40	94.60	132	3/4in SCH 40	12.5	153.69	396	0.3881
8	Blue	4.30	101.70	58	1/2in SCH 80	5.48	67.38	174	0.3872
7	Green	3.40	96.60	58	1/2in SCH 80	5.48	67.38	174	0.3872
4, 5	Orange, Pink	2.10	97.90	102	3/4in SCH 80	10.1	124.18	306	0.4058
	P-TANK	12.00	88.00						
		total	**feet =**	**408**	**gal/min =**	**39.04**		**LTAR =**	**0.300**

Des. Flow	480	**(ltar + 5%)**	0.32
24 Hour Pump Run=	12.30	**(ltar W/ INOV)**	0.40
		(ltar + 5%)	0.42

Comments:

PG3

BENFIELD OUTDOOR SERVICES & SOLUTIONS

Benfield Outdoor Services & Solutions
Phone: (704) 360-0376
939 Brawley School Rd.
Mooresville, North Carolina 28117
Info@yardsbyboss.com
LLS: Miranda Stamper #1258

August 17, 2022

Iredell County Environmental Health Department
610 East Center Avenue
Mooresville, NC 28115
Phone: 704-664-5281
Fax: 704-664-9737

Recommended Wastewater Disposal System
Owner: Robert C. Claris
PIN: 4664887457.000

To whom it may concern,

You will find attached a copy of the wastewater disposal system proposed for the owners Robert & Angela Claris. The lot of 20, PIN #4664887457.000 located on Riverstone Drive is in Iredell County. Also attached are the sealed soil notes, site plan and design for an onsite wastewater disposal system. The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2). Please review the attached proposal and contact me if you have any questions or concerns.

The LSS evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with G.S. 130A-335(a2)."

Owner: Robert C. Claris

Signature: _____

Signature: _____

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

Miranda Stamper, LSS

Signature: Miranda Stamper, LSS 9-22-2022

Pressure Manifold
Septic System Design

for

140 Riverstone Drive
Mooresville, North Carolina

Designed by:

Michael Benfield
Benfield Outdoor Services & Solutions, LLC
Mooresville, North Carolina
BOSS Project #: 1740

10/02/2022

140 Riverstone Drive
Table of Contents

Contact Information ---------- 1
Specifications (system) ---------- 2
Tap Chart (system) ---------- 3
Site Plan (System) ---------- 4
Control Panel Specifications ---------- -
Pump Specifications ---------- -
Effuent Filter Specifications ---------- -
Supply Line Hydraulic Profile ---------- -

Attachments

Septic and Pumptank Details	Figure	1
Pressure Mainfold and Trench Details	Figure	2

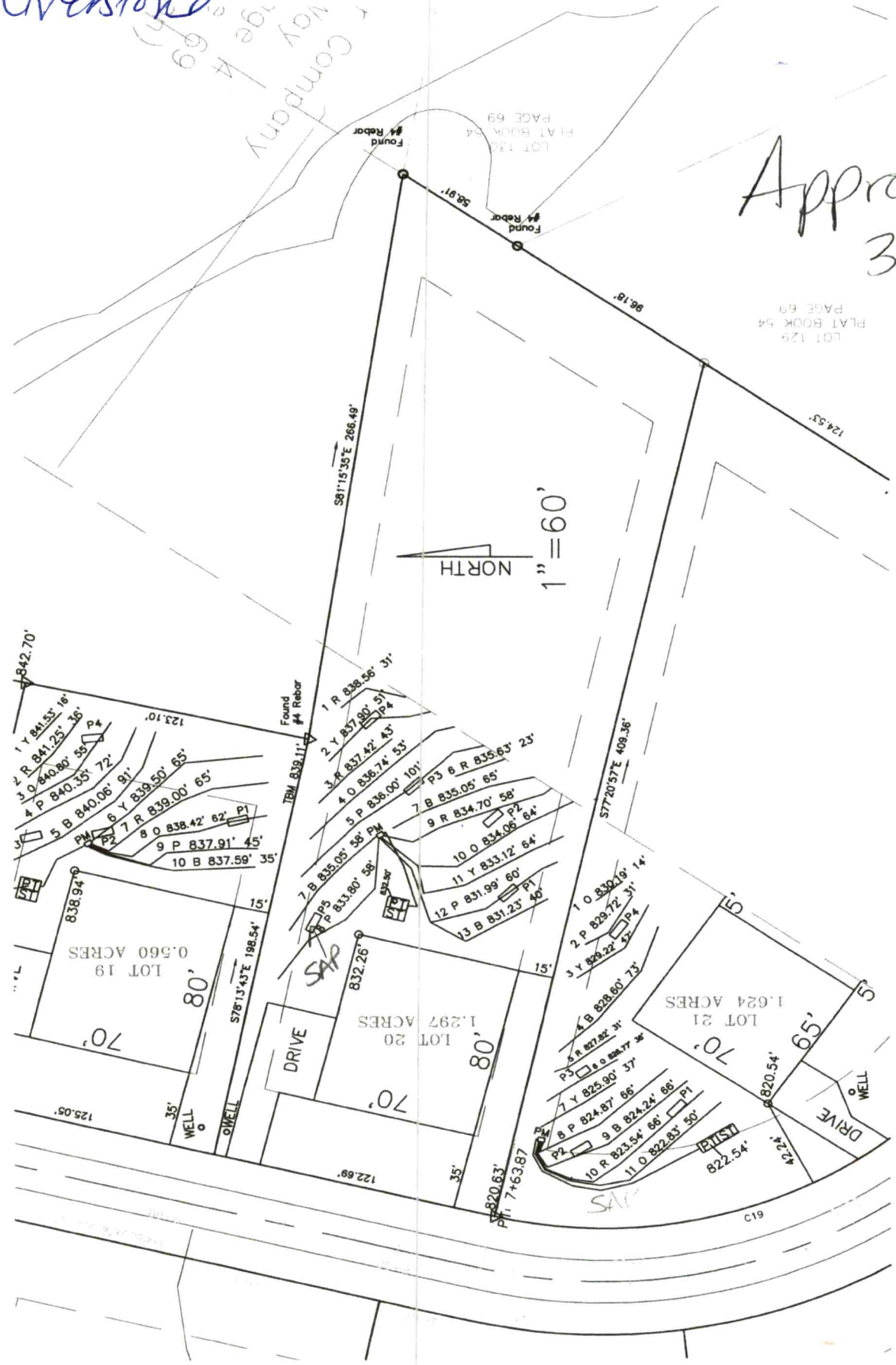
140 Riverstone Drive
Contact Information

Client: Champ Claris
Attn:
Street Address: 140 Riverstone Dr
Mooresville
Phone:
Fax: na

Designer: B.O.S.S.
Attn: Michael Benfield
Street Address: 939 Brawley School Lane.
Mooresville NC, 28117
Phone: 704-658-8616
Fax: na

140 Riverstone

Approved
3/6/18
MD



PROPERTY ID #: 4664887457
COUNTY: IREDELL

Approved
3/6/18

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

OWNER: RUFUS ROAD PARTNERS, LLC — APPLICATION DATE:
ADDRESS: 11220 ELM LN., SUITE 107, CHARLOTTE, NC 28277 — DATE EVALUATED: 1/23/18
PROPOSED FACILITY: RESIDENTIAL — PROPOSED DESIGN FLOW (.1949): 480 GPD — PROPERTY SIZE: 1.297 AC
LOCATION OF SITE: RIVERSTONE AT ANNISTON LOT 20 — PROPERTY RECORDED: YES
WATER SUPPLY: X Private ☐ Public ☐ 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 SAPRO CLASS	.1944 RESTR HORIZ	
P 1	LSS 8%	0-4	B SCL MFSBK	FR SS SP SEXP	N/A	61"	N/A	N/A	PS
		4-37	R C MFSBK/ABK	FR S P SEXP					
		37-61	R CL WFSBK	FR SS SP SEXP	-FEW/COM SAP INCL.				0.3 GPD/SQFT
P 2	LSS 4%	0-20	RB SCL WFSBK	FR SS SP SEXP	N/A	65"	N/A	N/A	PS
		20-40	R C MFSBK/ABK	FI S P SEXP					
		40-65	R CL WFSBK	FR SS SP SEXP	-FEW SAP				0.3 GPD/SQFT
P 3	LSS 7%	0-6	B SCL WFSBK	FR SS SP SEXP	N/A	61"	N/A	N/A	PS
		6-18	R C MFSBK	FI S P SEXP					
		18-31	R C MSSBK	FI S P SEXP	-FEW YB				0.25 GPD/SQFT
		31-37	R C MFSBK	FI S P SEXP					
		37-61	R CL WFSBK	FR SS SP SEXP	-COM SAP				
P 4	LSS 5%	0-5	B SCL WFSBK	FR SS SP SEXP	N/A	44"	N/A	N/A	PS
		5-22	R C MFSBK	FI S P SEXP					
		22-44	R CL WFSBK	FR SS SP SEXP	-COM SAP				0.325 GPD/SQFT
		44-61	VAR L SAP M	FR SS SP SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	PM 25% RED.	LP PPBPS
Site LTAR	0.3	0.25

OTHER FACTORS (.1946): NONE
SITE CLASSIFICATION (.1948): PS

EVALUATED BY: CS&SC
OTHER(S) PRESENT: DAVID BEANE

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

Approved
3/6/18
MD

PROPERTY ID #: 4664887457
DATE OF EVALUATION: 1/23/18
COUNTY: IREDELL

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	
P 5	LSS 11%	0-11	R C MFSBK/ABK	FI S P SEXP	N/A -COM SAP	40"	PS	N/A	PS
		11-40	R CL WFSBK	FR SS SP SEXP					
		40-67	VAR L SAP M	FR SS SP SEXP					
									0.325 GPD/SQFT

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 9/29/22 (Date) by online (Initials)

second sub. recd = 10/20/22

Permit Number: OSWP-2022-5758

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:

adjust Repair trench bottom - 28" should be max*, indicate cover will be required where less than 6"

Copies of this were sent to the LSS and the Owner on 10/31/22 (Date) (emailed 10/21/22)

State Authorized Agent: D Wieberg Date: 10/31/22

☐ 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: _____ Date of Issuance: _____

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: _____

See attached site sketch

Soil only evaluated to 40", cannot spec for a trench bottom that will exceed 28" w/ slope correction

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 9/29/22 (Date) by online (Initials)

Permit Number: OSWP-2022-5758

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:

① LSS Statement (file error) ③ functional site plan

② correct soil notes - see attached (see attached)

Copies of this were sent to the LSS and the Owner on 10/10/22 (Date)

State Authorized Agent: D. Wieberg Date: 10/10/22

☐ Denied (See attached report.)

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

State Authorized Agent: _____ Date: _____

☐ Complete

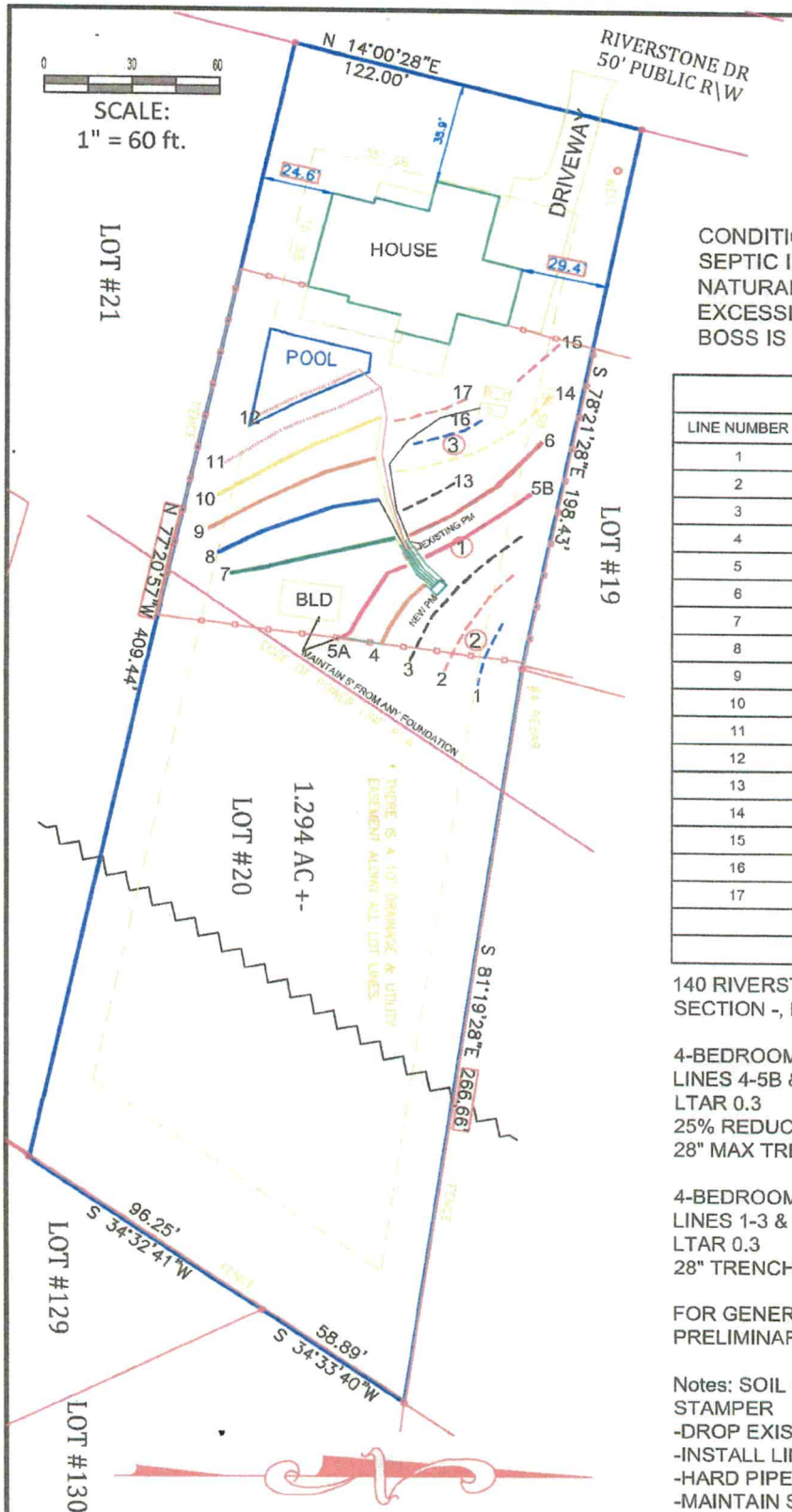
State Authorized Agent: _____ Date of Issuance: _____

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Improvement Permit Expiration Date: _____

See attached site sketch



ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

CONDITIONS: MUST BE INSTALLED BY A LICENSED SEPTIC INSTALLER. DRAINFIELD AREA MUST MAINTAIN NATURAL CONTOURS & SLOPE. IMPROPER OR EXCESSIVE GRADING WILL VOID THIS DESIGN AND BOSS IS NOT LIABLE.

LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	BLUE	0.5	24	0
2	RED	1.2	42	0
3	WHITE	1.6	60	0
4	ORANGE	2.1	27	26
5	PINK	2.6	86	76
6	RED	3.4	58	58
7	GREEN	3.4	58	58
8	BLUE	4.3	58	58
9	ORANGE	5.4	66	66
10	YELLOW	6.1	66	66
11	GREEN	7.2	60	0
12	PINK	7.9	38	0
13	WHITE	4.0	20	0
14	YELLOW	4.7	62	0
15	PINK	6.1	19	0
16	BLUE	5.4	25	0
17	RED	6.3	25	0
			TOTAL	TOTAL
			794	408

140 RIVERSTONE DRIVE, MOORESVILLE, NC 28117
SECTION -, LOT 50 ANNISTON

4-BEDROOM PRESSURE MANIFOLD TO ACCEPTED SYSTEM
LINES 4-5B & 6-10 TOTAL 408 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
28" MAX TRENCH BOTTOM

4-BEDROOM LP PANEL BLOCK SYSTEM
LINES 1-3 & 13-17 TOTAL 277'
LTAR 0.3
28" TRENCH BOTTOM

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
STATE OF NORTH CAROLINA
10/17/22

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-DROP EXISTING LINES #11 & 12
-INSTALL LINE # 4 AND 5
-HARD PIPE BETWEN LINE 5&5A FOR SUPPLY LINES
-MAINTAIN SETBACKS FROM PROPOSED POOL

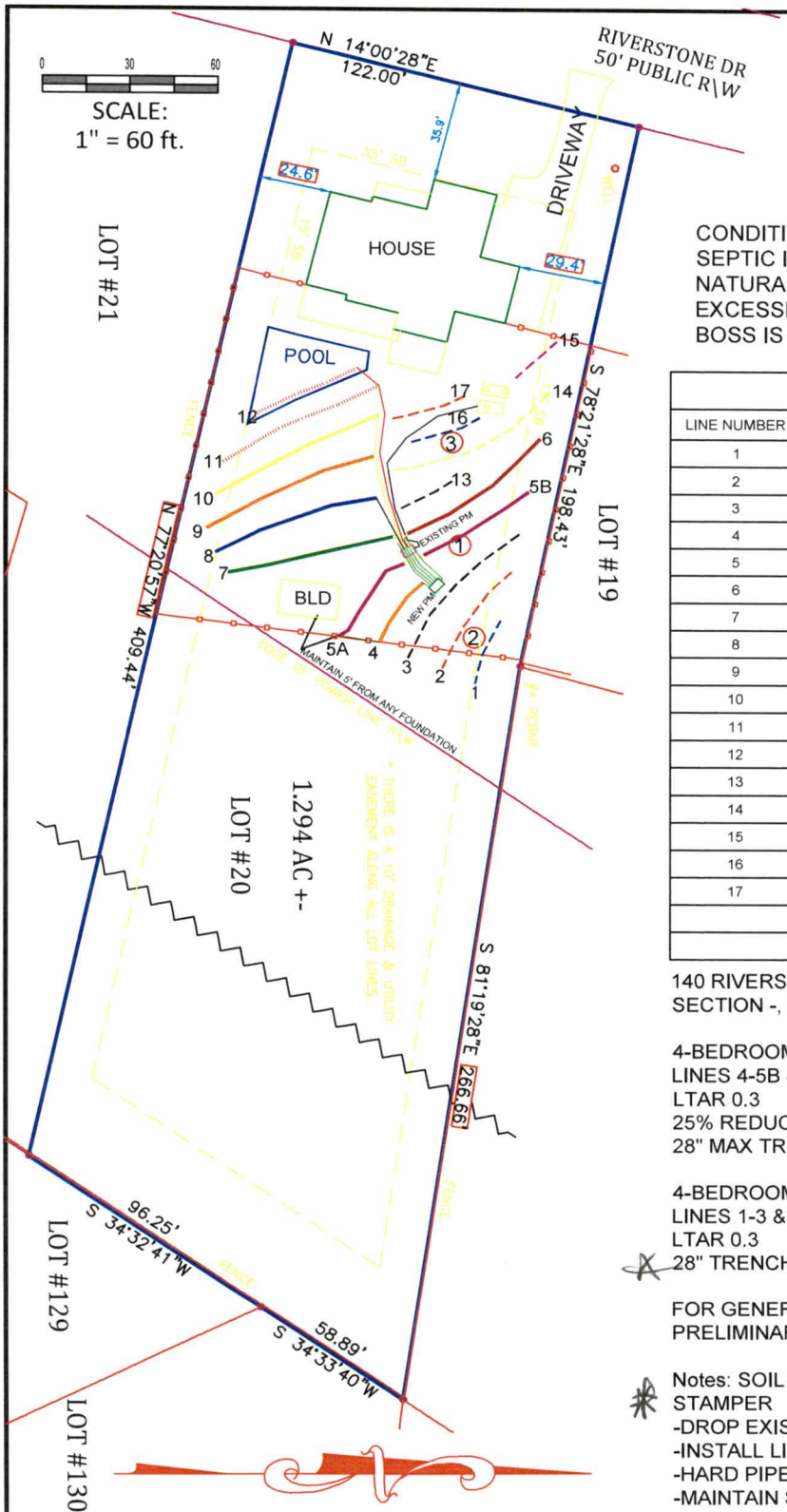
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Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
Info@yardsbyboss.com

CHAMP CLARIS

LOT 20
ANNISTON SUBDIVISION
MOORESVILLE, NC
IREDELL COUNTY

DATE: 10/16/22 DRAWN BY: MDB CHECKED BY: MES



ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

CONDITIONS: MUST BE INSTALLED BY A LICENSED SEPTIC INSTALLER. DRAINFIELD AREA MUST MAINTAIN NATURAL CONTOURS & SLOPE. IMPROPER OR EXCESSIVE GRADING WILL VOID THIS DESIGN AND BOSS IS NOT LIABLE.

LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	BLUE	0.5	24	0
2	RED	1.2	42	0
3	WHITE	1.6	60	0
4	ORANGE	2.1	27	26
5	PINK	2.6	86	76
6	RED	3.4	58	58
7	GREEN	3.4	58	58
8	BLUE	4.3	58	58
9	ORANGE	5.4	66	66
10	YELLOW	6.1	66	66
11	GREEN	7.2	60	0
12	PINK	7.9	38	0
13	WHITE	4.0	20	0
14	YELLOW	4.7	62	0
15	PINK	6.1	19	0
16	BLUE	5.4	25	0
17	RED	6.3	25	0
			TOTAL	TOTAL
			794	408

140 RIVERSTONE DRIVE, MOORESVILLE, NC 28117
SECTION -, LOT 50 ANNISTON

4-BEDROOM PRESSURE MANIFOLD TO ACCEPTED SYSTEM
LINES 4-5B & 6-10 TOTAL 408 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
28" MAX TRENCH BOTTOM

4-BEDROOM LP PANEL BLOCK SYSTEM
LINES 1-3 & 13-17 TOTAL 277'
LTAR 0.3
~~28" TRENCH BOTTOM~~ - max, cover may be req'd

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-DROP EXISTING LINES #11 & 12
-INSTALL LINE # 4 AND 5
-HARD PIPE BETWEN LINE 5&5A FOR SUPPLY LINES
-MAINTAIN SETBACKS FROM PROPOSED POOL

BOSS

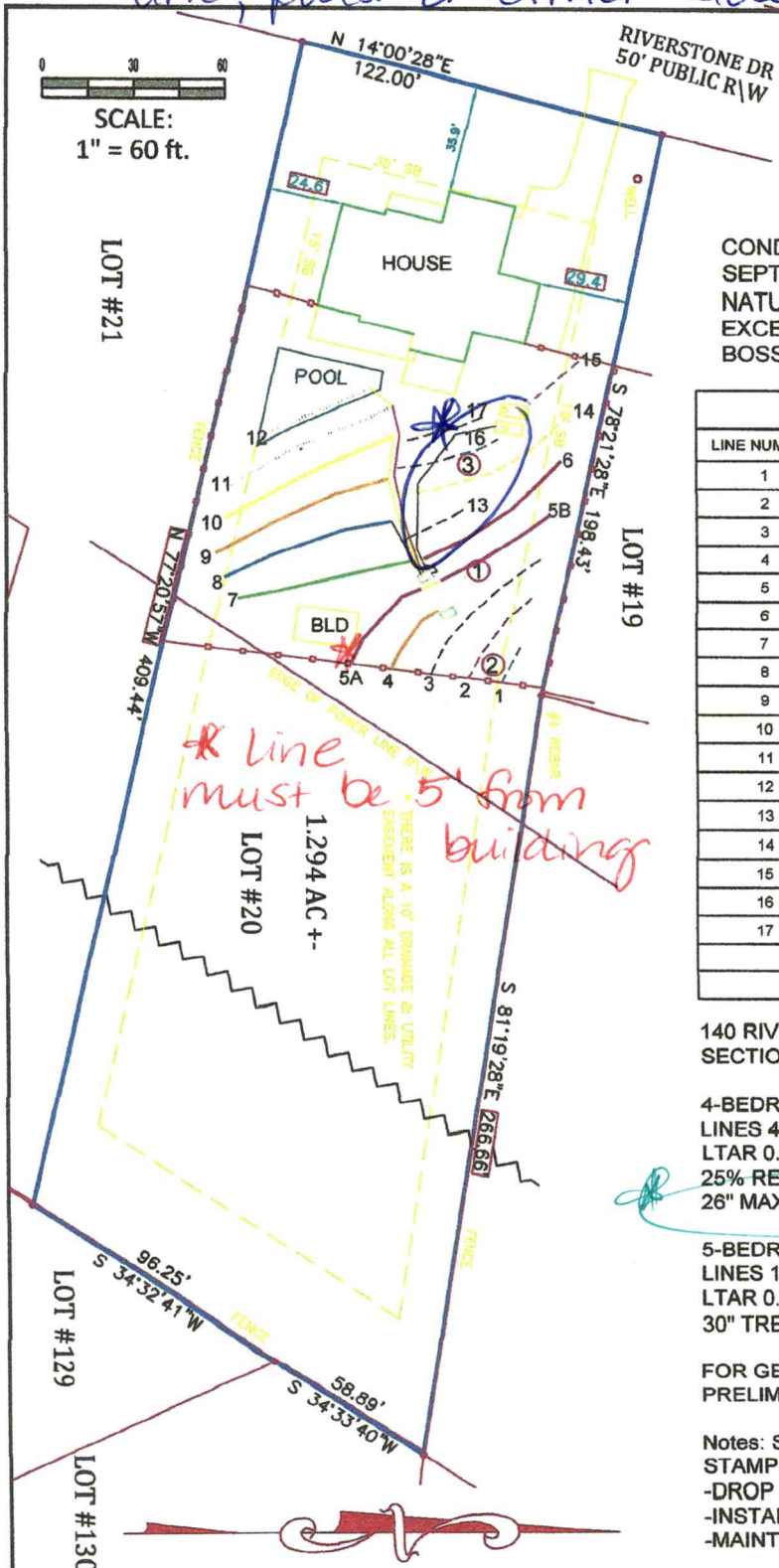
Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
Info@yardsbyboss.com

CHAMP CLARIS

LOT 20
ANNISTON SUBDIVISION
MOORESVILLE, NC
IREDELL COUNTY

DATE: 10/16/22 DRAWN BY: MDB CHECKED BY: MES

* must account for trench width of supply line, plus 2' either side of trench - insufficient repair



* Line must be 5' from building

ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

CONDITIONS: MUST BE INSTALLED BY A LICENSED SEPTIC INSTALLER. DRAINFIELD AREA MUST MAINTAIN NATURAL CONTOURS & SLOPE. IMPROPER OR EXCESSIVE GRADING WILL VOID THIS DESIGN AND BOSS IS NOT LIABLE.

LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	BLUE	0.5	14	0
2	RED	1.2	35	0
3	WHITE	1.6	55	0
4	ORANGE	2.1	27	26
5	PINK	2.6	86	76
6	RED	3.4	58	58
7	GREEN	3.4	58	58
8	BLUE	4.3	58	58
9	ORANGE	5.4	66	66
10	YELLOW	6.1	66	66
11	GREEN	7.2	60	0
12	PINK	7.9	38	0
13	WHITE	4.0	22	0
14	YELLOW	4.7	66	0
15	PINK	6.1	19	0
16	BLUE	5.4	34	0
17	RED	6.3	25	0
			TOTAL	TOTAL
			787	408

140 RIVERSTONE DRIVE, MOORESVILLE, NC 28117
SECTION -, LOT 50 ANNISTON

4-BEDROOM PRESSURE MANIFOLD TO ACCEPTED SYSTEM
LINES 4-5B & 6-10 TOTAL 408 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
26" MAX TRENCH BOTTOM

5-BEDROOM LP PANEL BLOCK SYSTEM
LINES 1-3 & 13-17 TOTAL 270
LTAR 0.3
30" TRENCH BOTTOM

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
STATE OF NORTH CAROLINA
9/21/22

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-DROP EXISTING LINES #11 & 12
-INSTALL LINE # 4 AND 5
-MAINTAIN SETBACKS FROM PROPOSED POOL

BOSS

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Info@yardsbyboss.com

CHAMP CLARIS

LOT 20
ANNISTON SUBDIVISION
MOORESVILLE, NC
IREDELL COUNTY

DATE: 9/21/22 DRAWN BY: MDB CHECKED BY: MES

140 Riverstone Drive

Layout/Design Specifications

Facility Type:	Single Family Home	
# of Bedrooms:	4	
Daily Flow:	480	**gal/day**
L.T.A.R.:	0.300	**gal/day/sq.ft**
Trench Depth:	36	**in** does not match site plan specs
Max Trench Width:	33	**in**
Stone Depth:	n/a	**in**
Manifold Length:	42	**in**
Manifold Diameter:	6	**in sch 80pvc**
Supply Line Length:	110	**ft**
Supply Line Diameter:	2	**in sch 40pvc**
Supply Line Volume:	16.18	**gallons**
Friction Loss + Fitting Loss:	1.42	**ft(supply line length + 70' fo pump tank)**
Design Head:	2	**ft**
Elevation Head:	9.00	**ft**
Total Head:	12.42	**ft**
Dose Volume:	199.14	**gals**
% of Pipe Vol.	.75	
Drawdown:	9.88	**in @ 20.16 gal/in**
Pump Run Time:	7.97	**Minutes**
Control Panel:	SJE Rhombus Model112 control panel (or approved equivalent)	
Pump:	Zoeller5032-0008 High Flow (or approved equiva	
ic Tank Effluent Filter:	Zoeller 170-0144 residential effluent filter (or approved equivalent)	
Existing **Septic Tank:**	1000	**gallon Shoaf**
Existing **Pump Tank:**	1000	**gallon Shoaf**

1

Sheet 1 of 1
PROPERTY ID #:
COUNTY:

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

OWNER: _____ Lot # 20
ADDRESS: 140 Rivrstone Dr
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: _____
APPLICATION DATE: _____
DATE EVALUATED: 8/31/2022
PROPERTY SIZE: _____
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)		OTHER PROFILE FACTORS				
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B1	3-4% L	0-12	SBK CL	SS SP FI	-	48"+	36" (2)	-	0.3 GAL/DAY/FT2
		12-27	SBK C	S P FU					
		27-36	SBK CL	SS SP FI					
		36-48	WSBK CL	NS NP FR					
B2	3-4% L	0-14	SBK SL	SS SP FI	- (1)	40"+	40"	-	0.3 GAL/DAY/FT2
		14-29	SBK C	S P FI					
		29-40	SBK CL	SS SP FI					
		40	WSBK SL	SS NP FR					
B3	3-4% L	1-10	SBK CL	SS SP FI	-	42"+	36"	-	0.3 GAL/DAY/FT2
		10-36	SBK C	S P FI					
		36-42	WSBK CL	NS NP FR					

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
STATE OF NORTH CAROLINA
1258
8/31/22

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

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: Miranda Stamper
OTHER(S) PRESENT: Michael Benfield

COMMENTS: (1) Soil not evaluated deep enough for 30" trench bottom

(2) Saprolite Class should be either suitable or unsuitable. If saprolite horizon, w/in 12" of trench bottom Pits required

PERMIT SNAPSHOT REPORT OSWP-2022-5758 FOR IREDELL COUNTY

Permit Type: Environmental Health OSWP
Work Class: EH Septic Relocation Improvement Permit
Status: In Progress
Valuation: $0.00
Description: SESSION LAW Septic relocation improvement permit
priority session law
Pump system

Project:
District: Iredell County
Square Feet: 0.00
Assigned To: Wieberg, Danielle

App Date: 09/29/2022
Exp Date: NOT AVAILABLE
Completed: NOT COMPLETED
Approval Expire Date:

Parcel: 4664887457.000 Main
Address: 140 Riverstone Dr Main
Davidson, NC 28036
Zone: RA(Residential Agricultural District)

Applicant/Authorized Agent
BENEFIELD OUTDOOR SERVICES & SOLUTIONS
939 Brawley School Rd
Mooresville, NC 28117
Business: (704) 360-0376

Property Owner
Robert Claris
140 RIVERSTONE DR.
DAVIDSON, NC 28036

Permit Custom Fields

How is your site plan being submitted	Custom Site Plan	Does the site contain any jurisdictional wetlands	No	Non-domestic Sewage Generated	No
Other Public Agency	No	All proposed structure dimensions	68 x 55	What are the proposed structures	Swimming Pool
If other Addition/Structure, please explain	35 x 35x 45 x 6	Maximum Number of Bedrooms	4	Number of Occupants	8
Foundation Type	Crawl Space Foundation	Residential/Business/Other	Residential	Number of Employees	0
Total number of seats	0	Water Supply	Existing Well	Desired Septic System Type	Other
If other septic system type, please explain		Lot Acreage	1.297	Front Setback	150
Back Setback	10	Left Setback	10	Right Setback	10
Is the structure or development in the floodplain	No	Is the property located downtown?	No	Is the property in a local historic district?	No
Additional Unique Setbacks Apply	No	Zoning Notes/Addendums	Swimming Pool: Must meet requirement R22 of the LDC. Pools shall be located to comply with minimum setbacks for accessory structures- located behind front building line of house, 10' from side & rear property line. Lake lots must meet the 50' setback from the 760 contour line AND the 35' setback from the rear property line. Pools that are not an integral part of the principal building shall be located at least the minimum distance from the principal building necessary to comply with N.C. Building Code. Setback from house could be +/-10'. Fenced with a minimum 4' in height, and equipped with self-closing and positive self-latching gate provided with hardware for permanent locking. Fence not required for above ground pools if they are at least 4' in height, the ladder removed, or when NOT in use have a gate to the ladder as described above.		

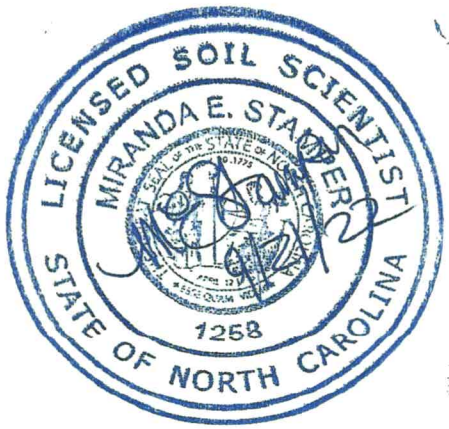
Pressure Manifold
Septic System Design

for

140 Riverstone Drive
Mooresville, North Carolina

Designed by:

Michael Benfield
Benfield Outdoor Services & Solutions, LLC
Mooresville, North Carolina
BOSS Project #: 1740



4/21/2022

140 Riverstone Drive
Table of Contents

Contact Information ---------- 1
Specifications (system) ---------- 2
Tap Chart (system) ---------- 3
Site Plan (System) ---------- 4
Control Panel Specifications ---------- -
Pump Specifications ---------- -
Effuent Filter Specifications ---------- -
Supply Line Hydraulic Profile ---------- -

Attachments

Septic and Pumptank Details	Figure	1
Pressure Mainfold and Trench Details	Figure	2

140 Riverstone Drive
Contact Information

Client: Champ Claris
Attn:
Street Address: 140 Riverstone Dr
Mooresville
Phone:
Fax: na

Designer: B.O.S.S.
Attn: Michael Benfield
Street Address: 939 Brawley School Lane.
Mooresville NC, 28117
Phone: 704-658-8616
Fax: na

County: Iredell

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

PIN/Lot Identifier: 4664887457

Issued To: Robert and Angela Claris

Property Location: 140 Riverstone Drive

Subdivision: Riverstone @ Anniston Lot #: 20 Block: _____ Section: _____

LSS Report Provided: Yes ☑ No ☐

If yes, name and license number of LSS: Miranda Stamper 1258

New ☐ Repair ☐ Expansion ☐ System Relocation ☑

Proposed Structure: Pool

Proposed Wastewater System Type: PM to chamber 25% reduction (Initial) PPBPS (Repair)

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

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

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

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

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

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

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

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

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

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

Permit conditions:

Licensed Soil Scientist Print Name: Miranda Stamper

Licensed Soil Scientist Signature: Miranda Stamper Digitally signed by Miranda Stamper Date: 2022.09.22 12:30:13 -04'00' Date: 9/22/22

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

See attached site sketch