ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # AP 330-50

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

PIN # 4730 -- 12 -- 4305

APPLICANT/OWNER: Benfield Outdoor Services + Solutions APPLICANT ADDRESS: 939 Brandy Wine Rd, Mooresville NC

SITE ADDRESS: 116 Silver Falls Drive Troutman NC PHONE: 704-360-4328 ALT. PHONE

SITE DIRECTIONS: From Rd & State Park, Morrison Farm & Silver Falls SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: Falls Cove Perennial SECTION: 6 LOT # 647 LOT AREA: 1.464 AC DESIGN FLOW: 450 L.T.A.R.: .30

Septic Tank	1000 (gal)	STB	TP 10/2	Date	1/20/23	☒ New System ☐ Repair ☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms	4	Water Supply
Pump Tank	1000 (gal)	PT	PT-17	Date	8/22/22	System Description: PM-25% Reduction		☐ Business	No. Persons	8	☐ Private
Pump Make	Zoeller	Model		Serial #		Repair System Description: LP-Pond Blue-50% Reduction		☐ Other	No. Employees		☐ Public
# Nitrification Fields	1	# Lines	3	Linear Ft	400	Maintenance Agreement Required: ☐ YES ☒ NO		☐ Slab	☒ Crawl Space		☐ Community
Trench Width	36in	Trench Bottom Depth (~~Low side~~)	34in max	Gravel Depth	-	☐ GRAVITY ☒ PRESSURE		☐ Basement w/plumbing	☐ Basement w/o plumbing		

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Benfield Outdoor Services + Solutions

LSS# 1258 Dated May 16, 2022

AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

As Built Attached

PH/PM/Floats CW 4/21/23

Tanks/Lines DW 4/19/23

Alarm / Electrical MW 8/18/23

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: R. Widmer Date: Installed by: Dellinger

IMPROVEMENT PERMIT by: Benjamin Bass Date: 7-11-2022 OPERATION PERMIT by: Matt Wis Date: 8/18/23

AUTHORIZATION TO CONSTRUCT by: Benjamin Bass Date: 9-21-22 Existing System Inspected by: Date:

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

LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	WHITE	2.8	48	0
2	BLUE	3.9	113	0
3	RED	5.0	134	134
4	GREEN	5.9	135	134
5	PINK	7	148	134
6	ORANGE	8.7	158	00
7	YELLOW	9.4	152	0
8	BLUE	10.6	62	0
			TOTAL	TOTAL
			950	402

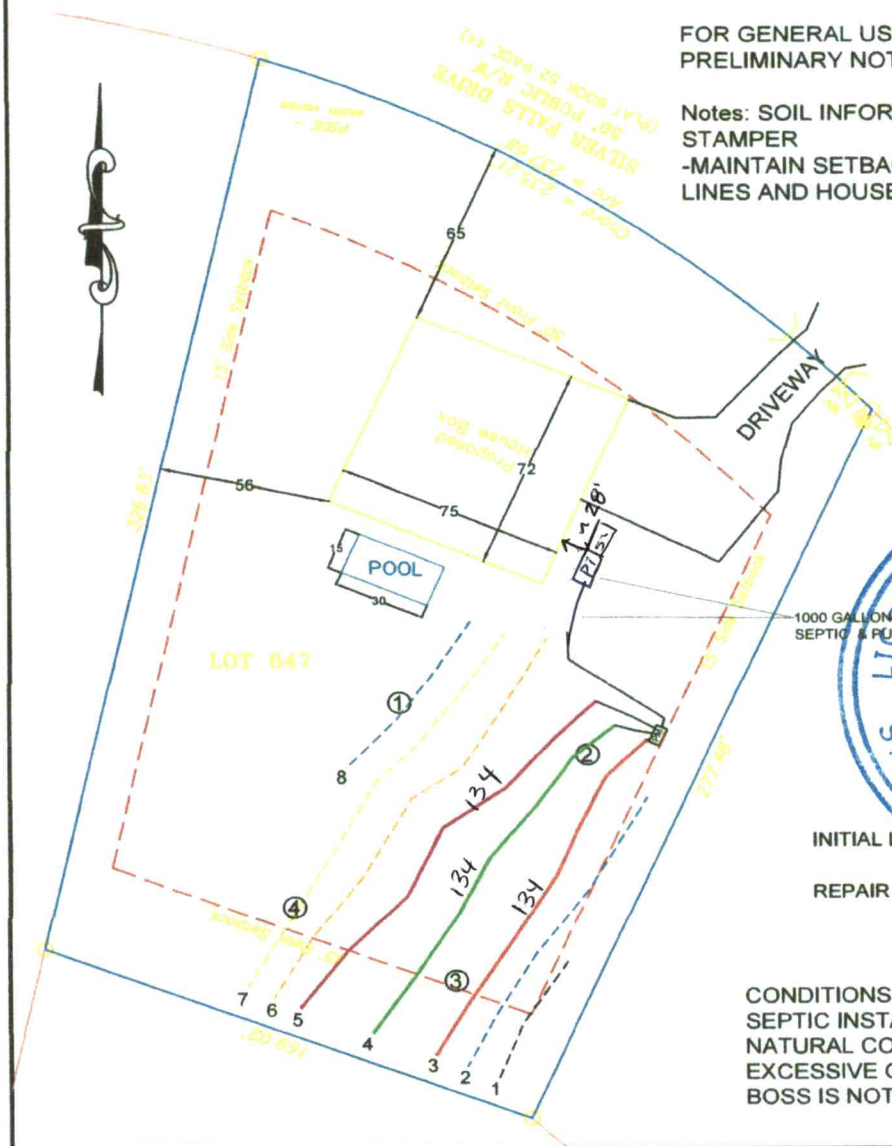
SILVER FALLS RD, TROUTMAN, NC 28166
SECTION 6, LOT 647 FALLS COVE

4-BEDROOM PRESSURE MANIFOLD TO ACCEPTED SYSTEM
LINES 3-5 TOTAL 402 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
30-34" MAX TRENCH BOTTOM

4-BEDROOM LP PANEL BLOCK SYSTEM
LINES 1-2 & 6-8 TOTAL 533'
LTAR 0.3
36" TRENCH BOTTOM

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-MAINTAIN SETBACKS FROM PROPOSED POOL, PROPERTY LINES AND HOUSE



0 30 60

SCALE:
1" = 60 ft.

As Built

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
1258
STATE OF NORTH CAROLINA
6/23/22

INITIAL LINE

REPAIR 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.

BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0378
info@yardsbyboss.com

MICHAEL GANDY

LOT 647
FALLS COVE SUBDIVISION
TROUTMAN, NC
IREDELL COUNTY

DATE: 6/18/22 DRAWN BY: MDB CHECKED BY: MES

Silver Falls Rd lot 647

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:	34	**in MAX**
Trench Width:	36	**in**
Stone Depth:	accepted	**in**
Manifold Length:	42	**in**
Manifold Diameter:	4	**in sch 80pvc**
Supply Line Length:	53	**ft**
Supply Line Diameter:	2	**in sch 40pvc**
Supply Line Volume:	9.22	**gallons**
Friction Loss + Fitting Loss:	0.93	**ft(supply line length + 70' for fittings in pump tank)**
Design Head:	2	**ft**
Elevation Head:	7.10	**ft**
Total Head:	10.03	**ft**
Dose Volume:	196.22	**gals**
% of Pipe Vol.	.75	
Drawdown:	9.73	**in @ 20.16 gal/in**
Pump Run Time:	7.85	**Minutes**
Control Panel:	SJE Rhombus Model112 control panel (or approved equivalent)	
Pump:	Zoeller5032-0008 High Flow (or approved equivalent)	
Tank Effluent Filter:	Zoeller 140 residential effluent filter (or approved equivalent)	
Septic Tank:	1000	**gallon Shoaf**
Pump Tank:	1000	**gallon Shoaf**

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

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

May 16, 2022

Recommended Wastewater Disposal System
Owner: Michael Gandy
PIN: 4730124303.000

To whom it may concern,

You will find attached a copy of the wastewater disposal system proposed for the owner Mr. Michael Gandy. The lot is 647 located on Silver Falls Dr. and described as PIN# 4730124303.000 in Iredell County. Also attached are the sealed soil notes, site plan and design for an on-site wastewater disposal system. This is submitted under Session Law 2018-114 (HB 374). 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 SL-2018-114 Section 11 (C). System must be installed by a certified septic installer. Drain field must maintain natural contours and slope, improper or excessive grading will void design of wastewater system.

Owner: Michael Gandy, Lot 647 Silver Falls Dr., NC 28115

Signature: _____

The LSS Evaluation is submitted pursuant to and meeting requirements of SL-2018-114 Section 11 (C).

Miranda Stamper, LSS

Signature: Miranda E Stamper, LSS

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
1258
STATE OF NORTH CAROLINA
M E Stamper 5/16/22

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6	ORANGE	8.7	158	00
7	YELLOW	9.4	152	0
8	BLUE	10.6	62	0
			TOTAL	TOTAL
			950	402

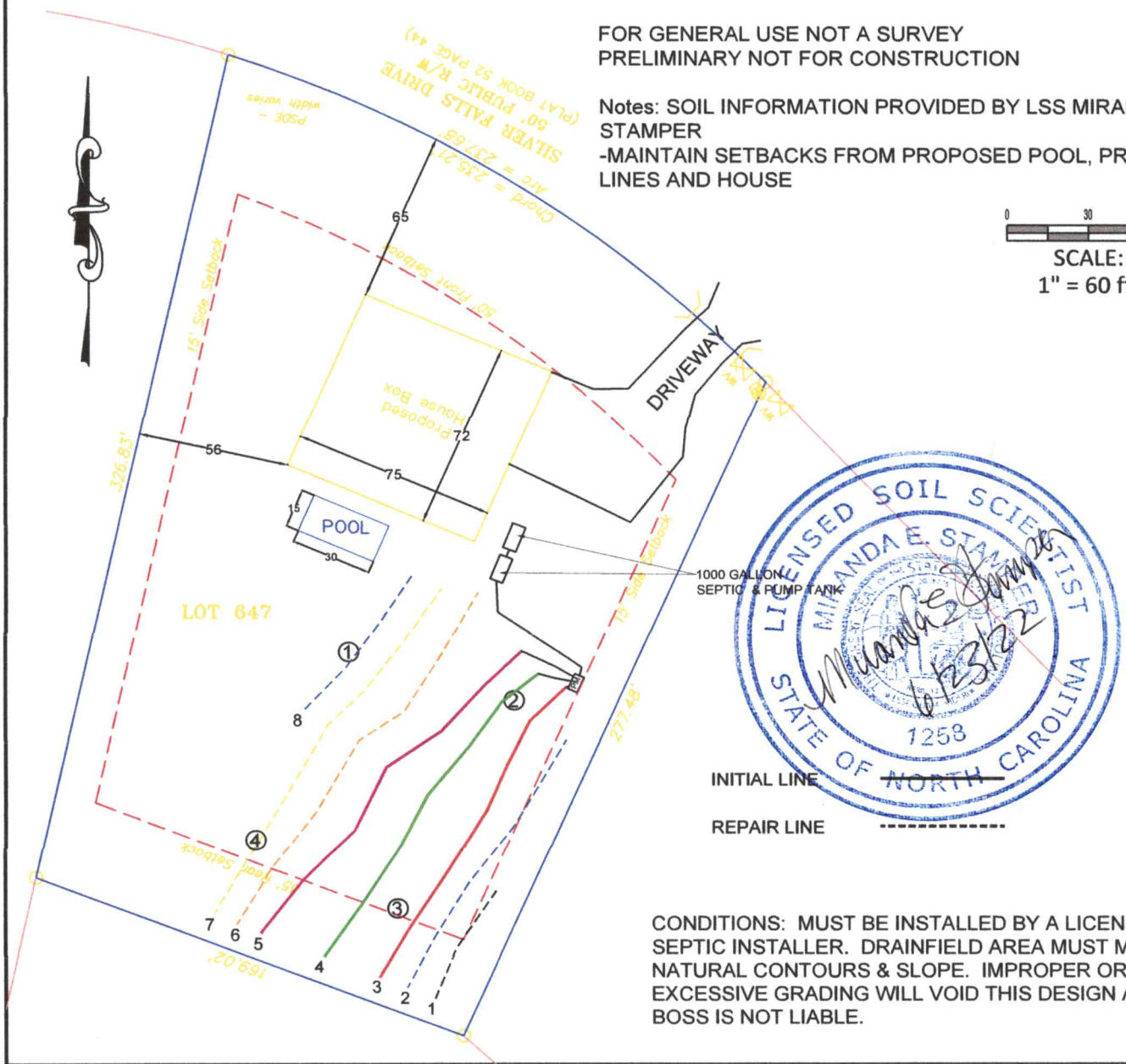
SILVER FALLS RD, TROUTMAN, NC 28166
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25% REDUCTION 9' OC
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FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-MAINTAIN SETBACKS FROM PROPOSED POOL, PROPERTY LINES AND HOUSE



LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
STATE OF NORTH CAROLINA
1258
6/23/22

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.

BOSS

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

MICHAEL GANDY

LOT 647
FALLS COVE SUBDIVISION
TROUTMAN, NC
IREDELL COUNTY

DATE: 6/18/22 DRAWN BY: MDB CHECKED BY: MES

Silver Falls Rd lot 647

Layout/Design Specifications

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Septic Tank:	1000	**gallon Shoaf**
Pump Tank:	1000	**gallon Shoaf**

Pressure Manifold
Septic System Design

for

Silver Falls Rd lot 647
Mooresville, North Carolina

Designed by:

Michael Benfield
Benfield Outdoor Services & Solutions, LLC
Mooresville, North Carolina
BOSS Project #: 1550



06/18/2022

Silver Falls Rd lot 647

Table of Contents

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Effuent Filter Specifications ---------- 9
Supply Line Hydraulic Profile ---------- 11

Attachments

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

Silver Falls Rd lot 647

Contact Information

Client: Michael Gandy
Attn:
Street Address:

Phone: 704-506-5148
Email rmichaelgandy@gmail.com

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

Silver Falls Rd lot 647
SYSTEM TAP CHART

Bench Mark:	0	= 100.00	**Manifold elev:**	3.10	
Pump tank elevation:	8.20		**Pump elev:**	2.80	

line	color	rod read	elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
3	Red	5.00	95.00	134	1/2in SCH 40	7.11	160.00	402	0.3980
4	Green	5.90	94.10	134	1/2in SCH 40	7.11	160.00	402	0.3980
5	Pink	7.00	93.00	134	1/2in SCH 40	7.11	160.00	402	0.3980
	P-TANK	8.20	91.80						
		total	**feet =**	**402**	**gal/min =**	**21.33**		**LTAR =**	**0.300**

Des. Flow	480	**(ltar + 5%)**	0.32
24 Hour Pump Run=	22.50	**(ltar W/ INOV)**	0.40
		(ltar + 5%)	0.42

Comments:

Stamper Soil Services, PLLC
4115 Highland Pointe Dr.
Unionville, NC 28110-9113
(919) 815-3175

PROPERTY ID #: 4730124303.000
COUNTY: Iredell

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

OWNER: _____ Lot # 647 APPLICATION DATE: _____
ADDRESS: 116 Silver Falls Dr. DATE EVALUATED: 5/5/2022
PROPOSED FACILITY: 4 bedroom PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE: 1.404
LOCATION OF SITE: Silver Falls Dr. off of Morrison Farm Rd. in Troutman PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B1	L 4%	0-6	GR SL	NS NP FR	--	48"	--	--	0.35
		6-32	SBK C	S P FI					
		32-48	SBK CL	SS SP FI					
B2	L 4%	0-10	GR SL	NS NP FR	--	46"	--	--	0.35
		10-20	SBK SCL/C	SS SP FR/FI					
		20-34	SBK C	S P FI					
		34-46	SBK CL	S P FI					
B3	L 3%	0-8	GR SL	NS SP FR	--	48"	II 36"	--	0.3
		8-36	SBK C	S P FI					
		36-48	WSBK CL	SS NP FR					
B4	L 3%	0-7	GR SL	NS SP FR	--	48"	II 40"	--	0.3
		7-40	SBK C	S P FI					
		40-48	WSBK CL	SS NP FR					

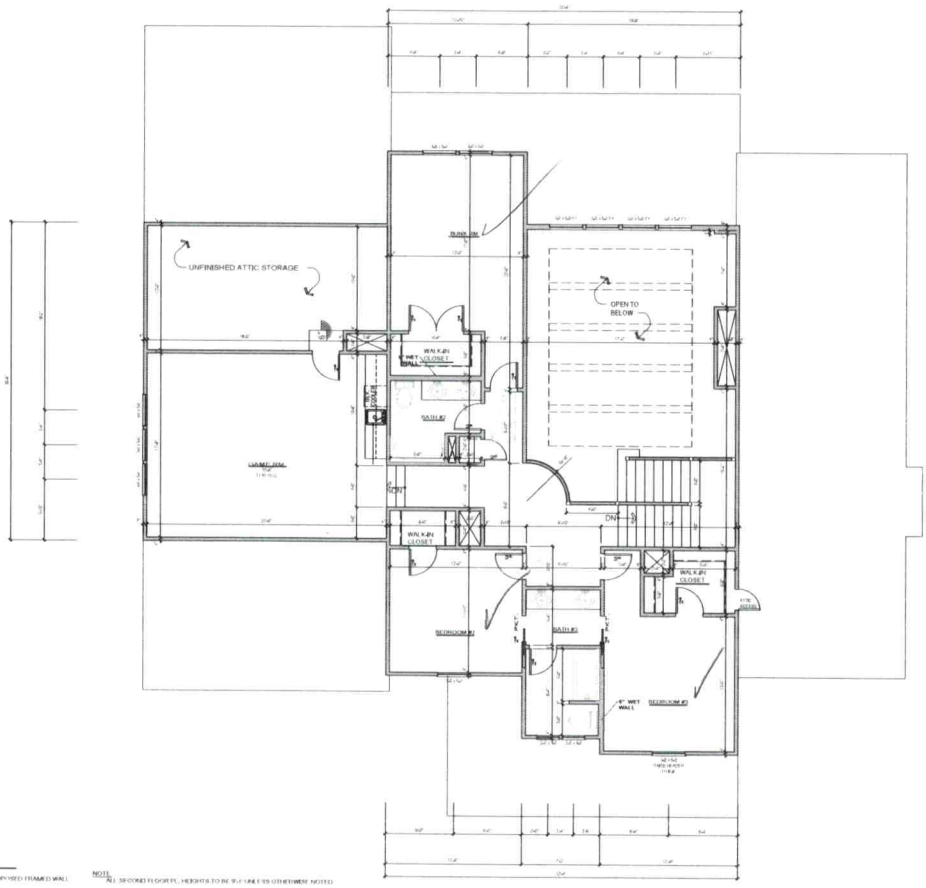
LICENSED SOIL SCIENTIST MIRANDA E. STAMPER 7268 STATE OF NORTH CAROLINA
MES Stamper 5/16/22

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	400 LF	267 LF
System Type(s)	25% reduction	PPBPS
Site LTAR	0.3	0.3

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

COMMENTS: _____

BAB. 2/21/22.



SECOND FLOOR PLAN

SCALE: 1/4"=1'-0"

LEGEND

PROPOSED FRAMED WALL

PROPOSED STEM WALL

NOTE:
ALL SECOND FLOOR PL. HEIGHTS TO BE 9'-0" UNLESS OTHERWISE NOTED
ALL SECOND FLOOR INTERIOR DOOR HEIGHTS TO BE 6'-8"
ALL INTERIOR DOORS TO HAVE 4" CASING
ALL SECOND FLOOR WINDOW HEAD HEIGHTS TO BE 6'-8"

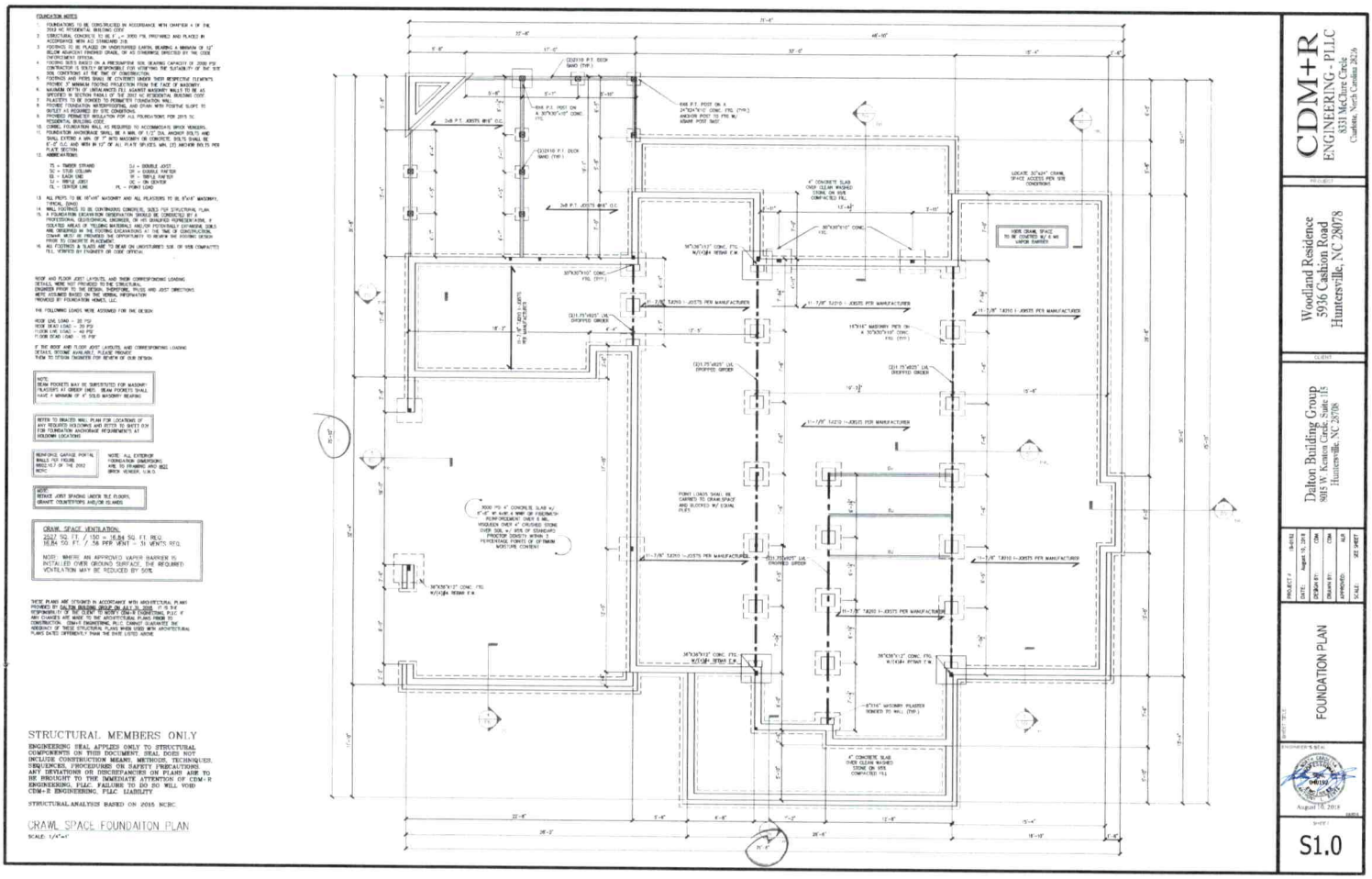
Project No. XXXX
WOODLAND RESIDENCE
5939 Carlton Road
Huntersville, NC 28078
Tax Map:
01321118

Date: 8/10/18
Scale: 1/4"=1'-0"

SECOND FLOOR PLAN

A4.0

BAB 9-21-22



CDM+R
ENGINEERING - PLLC
8331 McClure Circle
Charlotte, North Carolina 28216

Woodland Residence
5936 Cashion Road
Huntersville, NC 28078

Dalton Building Group
9015 W. Keaton Circle, Suite 115
Huntersville, NC 28708

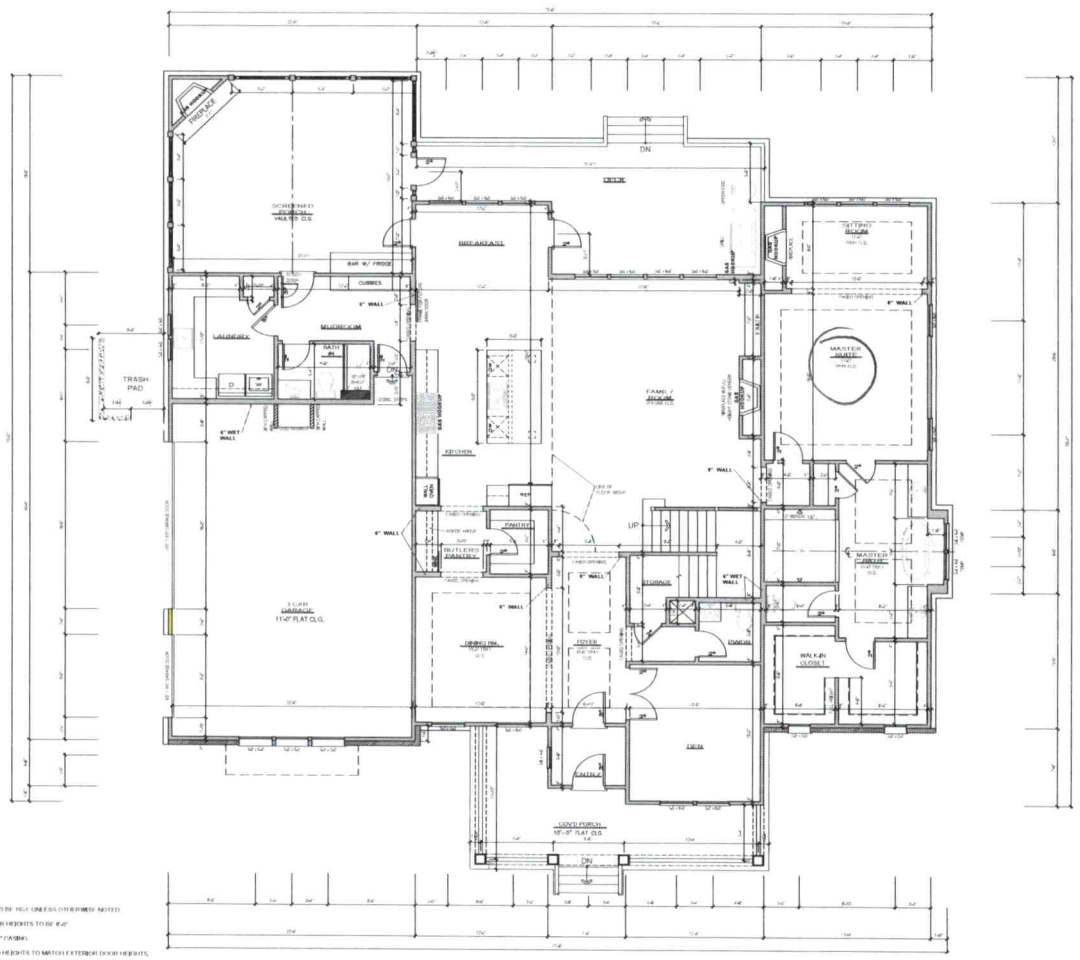
PROJECT #	18-052
DATE:	August 10, 2018
DESIGN BY:	CDM
DRAWN BY:	CDM
APPROVED:	ALP
SCALE:	SEE SHEET

FOUNDATION PLAN

August 10, 2018

S1.0

BAB
9-21-22



FIRST FLOOR PLAN

LEGEND

PROPOSED FRAMED WALL

PROPOSED STEM WALL

NOTE

ALL FIRST FLOOR FL. HEIGHTS TO BE 1'-0" UNLESS OTHERWISE NOTED.

ALL FIRST FLOOR INTERIOR DOOR HEIGHTS TO BE 8'-0"

ALL INTERIOR DOORS TO HAVE 4" CASING

ALL FIRST FLOOR WINDOW HEAD HEIGHTS TO MATCH EXTERIOR DOOR HEIGHTS.

Project No. xxxx
WOODLAND RESIDENCE
5936 Cashion Road
Matthews, NC 28078
Tax Map:
01321118

Date: 8/10/18
Scale: 1/4"=1'-0"

Sheet Title: FIRST FLOOR PLAN

Sheet No.: A3.0