IREDELL COUNTY HEALTH DEPARTMENT

KW

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # 241564

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

PIN # 4648-87-8041

APPLICANT/OWNER: Geoffrey Bowen/EFC Builders | APPLICANT ADDRESS: P.O. Box 6528 Mooresville, NC 28117

SITE ADDRESS: 133 Dorothy Lane Mooresville, NC | PHONE: 704-239-2022 | ALT. PHONE

SITE DIRECTIONS: Rt 115 N from Mooresville → L on Cornelius Rd → R on Dorothy Lane → Site on Left | SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: Glinda Hills | SECTION: – | LOT # 4 | LOT AREA: 0.71 acres | DESIGN FLOW: 360 GPD | L.T.A.R.: 0.30

Septic Tank	1000	(gal)	STB	825	Date	4-6-20	☒ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	
Pump Tank	—	(gal)	PT	—	Date	—	System Description:	25% Reduction (Serial Distribution)			
Pump Make	—	Model		—	Serial #	—	Repair System Description:	50% Reduction CLP-PPBPS			
# Nitrification Fields	1	# Lines		3	Linear Ft	300	Maintenance Agreement Required:	☐ YES	☒ NO		
Trench Width	36"	Trench Bottom Depth(Low side)		34"	Gravel Depth	—	☒ GRAVITY	☐ PRESSURE			

☒ Residence	No. Bedrooms	3	**Water Supply**
☐ Business	No. Persons	6	☒ Private
☐ Other	No. Employees		☐ Public
☒ Slab	☐ Crawl Space		☐ Community
☐ Basement w/plumbing			☐ Basement w/o plumbing

Comments / Conditions: Recommend pumping septic tank every 3-5 years

24 Manholes
25
25

INITIAL SITE SKETCH

See attached plan from Carolina Soil + Septic Consultants

Dated: 12-28-2018 Adrian Pruett LSS# 1314

AS BUILT SKETCH

21 Ft from house to ST
11 Ft from side PL to ST

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: G M Bowen | Date: 2/13/19 | Installed by: Bowan Septic

IMPROVEMENT PERMIT by: Thomas Lynch | Date: 1/30/2019 | OPERATION PERMIT by: Maria Dobson | Date: 5/18/20

AUTHORIZATION TO CONSTRUCT by: Kayla Wilson | Date: 1-7-20 | Existing System Inspected by: | Date:

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

Carolina Soil & Septic Consulting, PLLC

P.O. Box 1703, Mooresville, NC 28115

Phone: (704) 202-5791 Email: adrianpruett@yahoo.com

NC Licensed Soil Scientist, SC Professional Soil Classifier,
Certified Septic System Operator, Licensed Septic Installer,
Certified Septic Inspector

**Proposed Design for a 25% Reduction Septic System
using Gravity distribution for a 3 bedroom single family residence
on Lot 4 of Glinda Hills Subdivision, in
Mooresville, Iredell County, North Carolina.**

Contents: **Page**

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

Design Information
Design Specifications---------- 2
Layout Specifications---------- 3

Site Plan/System Plan---------- 4

Dosing Calculations---------- 5

Soil Profile Descriptions---------- 6

December 28, 2018
Job Number: 18158
Design By: Jacob Conrad

APPROVED JAN 30 2019

LICENSED SOIL SCIENTIST
ADRIAN L. PRUETT
1314
STATE OF NORTH CAROLINA

INFORMATION FOR INSTALLER:

- The permit should be read very carefully prior to submitting bid. 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.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- The installer is responsible for final grades and returning that grade to original, with exception of added structural features.
- The supply trench shall be compacted to eliminate any 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 has no more than 1/4"fall in 10 feet with no high or low areas within. If high or low areas do exist after trench excavation, high areas should be removed rather than filling in low areas. Do not over excavate trenches! Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.
- 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 pin flag locations should be checked by the installer prior to beginning trenches to insure accuracy.
- If septic tank risers are used they should be a minimum of 6" above finished grade or within 6" of final grade if buried.
- Design precludes use of foundation drains on the residence.
- System is specified as an Accepted 25% Reduction Gravity installation.
- Repair is specified as PPBPS Low Pressure installation.
- Trench width is specified as 36" wide, rake and lime all trench sidewalls
- **If grading for slab foundation is utilized do not grade/create greater than 2 ft of elevation difference within 15 ft of any component of the septic or repair. If back filling do not backfill over any initial or repair septic line.**

OWNER INFORMATION

Owner:	EFC Associates, Inc
Address:	PO Box 5628 Mooresville, NC 28117
Contact:	Geoffrey Bowen
Phone:	704-239-2022
County:	Iredell
Location:	LOT 4 OF GLINDA HILLS SUBDIVISION
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	360
System Flow:	NA

25% GRAVITY DESIGN INFORMATION

Drainfield Design Flow (gpd):	360
Loading/Soil Application Rate (gpd/ft.^{2}):	0.300
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
Total Lateral Length From Layout:	300
Total Lateral Length Required:	300
Trench Depth:	34 in. Lowside
Trench Width:	36 in.
TOTAL AREA TRENCH BOTTOM:	900
Trench Spacing on Center:	9 ft.
Repair Trench Spacing on Center:	8 ft.
Repair Trench Depth:	32 in.
Repair Trench Width:	24 in.
Septic Tank Size:	1000 gal.
Estimated Supply Line Length:	50
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	18.00
Dosing Volume:	NA
Supply Manifold:	SERIAL DISTRIBUTION
Additional Comments:	Soil suitability was performed by CS&SC

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LOT 4 OF GLINDA HILLS SUBDIVISION
FIELD LAYOUT SPECIFICATIONS

LAYOUT FOR 3 BEDROOM RESIDENCE — December 28, 2018

LINE #	FLAG COLOR	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM			NA		
HOUSE CRN		NA	NA		
P. TANK		NA	NA		
1	YELLOW	NA	NA	89	83
2	PINK	NA	NA	88	83
3	***RED***	***NA***	***NA***	***107***	***100***
4	***YELLOW***	***NA***	***NA***	***106***	***100***
5	***ORANGE***	***NA***	***NA***	***105***	***100***
6	BLUE	NA	NA	61	61
			Total	**556**	**527**

System	LINE LENGTH *300*	SYSTEM TYPE *ACCEPT.*	SOIL LTAR GPD/FT^2 *0.300*	TRENCH SYSTEM *25% RED.*	DISTRIBUTION *GRAVITY*
Repair	227	*MOD.*	0.300	PPBPS	LOW PRESSURE

Notes: ** TBM Is Not Required.
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags

Comments: **Iredell County has CS&SC's permission to change septic tank location and distribution type**

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DOSING CALCULATIONS

Location GLINDA HILLS SUBDIVISION

Lot No: 4

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.300	$^{gal}/_{ft^2\ day}$
25% RED. Expansion? (YES OR NO)	YES	
Supply Line Length	50	ft.
Supply Line Volume	18	gal.
Required Feet of 25% RED. Line	300	ft.
Amount of Line from Layout	300	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Septic Tank Capacity	1000	gal.
Minimum Septic Tank Capacity	1000	gal.
Lateral Line Volume	195.9	gal.

APPROVED JAN 30 2019

Sheet 1 OF 1
PROP. ID #: 4648878041
COUNTY: IREDELL

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

OWNER: EFC ASSOCIATES INC
ADDRESS: 420 SOUTH MAIN ST. TROUTMAN N.C. 28166
PROPOSED FACILITY: SFR PROPOSED DESIGN FLOW (.1949): 360 gpd
LOCATION OF SITE: 133 DOROTHY LN. MOORESVILLE N.C. 28117

APPLICATION DATE:
DATE EVALUATED: 1/16/2019
PROPERTY SIZE: .71 AC
PROPERTY RECORDED: YES

WATER SUPPLY: PRIVATE PUBLIC WELL X SPRING OTHER:

EVAL. METHOD: A. BORING X PIT CUT **WASTEWATER TYPE** 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/C OLOR	.1943 SOIL DEPTH	.1956 SAPROLITE CLASS	.1944 RESTR HORIZON	
1	LS/3%	0-12	SCL WSBK	FR SS SP SEXP	N/A	65"	FEW INC 41-65"	65"+	0.3
		12-41	RC MABK	FI S SP SEXP					
		41-65	RCL WSBK	FR SS SP SEXP					
2	LS/5%	0-7	SCL WSBK	VFR SS SP SEXP	FEW LITHO 7-33"	68"	COM INC 33-68"+	68"+	0.3
		7-33	RC MABK	FI S SP SEXP					
		33-68	RCL WSBK	FR SS SP SEXP					
3	LS/4%	0-3	SCL WSBK	VFR SS SP SEXP	N/A	62"	COM INC 30-62"	62"+	0.3
		3-17	RC MABK	FI S SP SEXP					
		17-30	RC WSBK	FI SS SP SEXP					
		30-62	RCL WSBK	FR SS SP SEXP					
4	LS/6%	0-25	RC WSBK	FI S SP SEXP	N/A	62"	COM INC 25-62"	62"+	0.325
		25-62	RCL WSBK	FR SS SP SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
AVAILABLE SPACE (.1945)	PS	PS
SYSTEM TYPE(S)	GRAVITY 25% REDUCTION	LP PPBPS
SITE LTAR	0.3	0.3
COMMENTS		

OTHER FACTORS (.1946):	N/A
SITE CLASSIFICATION (.1948):	PS
EVALUATED BY:	BEN ALDRIDGE
OTHER(S) PRESENT	JACOB CONRAD DAVID BEANE

Tom Shuck (Holes 1+2)

241564 EFT 1/17/19 $350

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

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

Applicant Information: **(PRINT CLEARLY)**

Applicant Name: GEOFFREY BOWEN/EFC BUILDERS/CS&SC **Address:** PO BOX 6528 MOORESVILLE, NC **Zip:** 28117

Applicant Email: _____ **Phone:** 704-239-2022 **Alt. Phone:** _____

Owner Name: GEOFFREY BOWEN/EFC BUILDERS **Address:** PO BOX 6528 MOORESVILLE, NC **Zip:** 28117

Owner Email: _____ **Phone:** 704-239-2022 **Alt. Phone:** _____

Property Information:

Street Address: 133 DOROTHY LN. MOORESVILLE, NC 28117

Subdivision Name: GLINDA HILLS **Section/Phase:** _____ **Lot Number:** 4

Driving Directions: 21N, TL CORNELIUS RD., TR DOROTHY LN., ON L

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

CHECK FOUNDATION TYPE

(✓) New Single Family Residence — Maximum Number of Bedrooms: 3 — ( ) Crawl Space Foundation
( ) New Multi-Family Residence — Maximum Number of Occupants: 6 — (✓) Concrete Slab Foundation
( ) Accessory Building — ( ) Swimming Pool — ( ) Basement with Plumbing
( ) Bedroom(s) Addition — ( ) Other Addition/Structure: _____ — ( ) Basement without Plumbing
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem: _____
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: _____

(✓) 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 ( ) Modified Conventional (✓) Other: ACCEPTED

Please answer the following to the best of your ability:
( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
( ) Yes (✓) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (✓) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

Signature: _____ 1-17-19
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

Public Health

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

Public Health

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

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.

I, EFC ASSOCIATES, INC. GEOFFREY BOWEN, PRESIDENT, am the legal owner(s) of the property located at 133 DOROTHY LN. MOORESVILLE NC 28117, identified as PIN (Parcel Identification Number) 4648-87-7041, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) ADRIAN L. PRUETT, CAROLINA SOIL & SEPTIC CONSULTING, PLLC, 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.

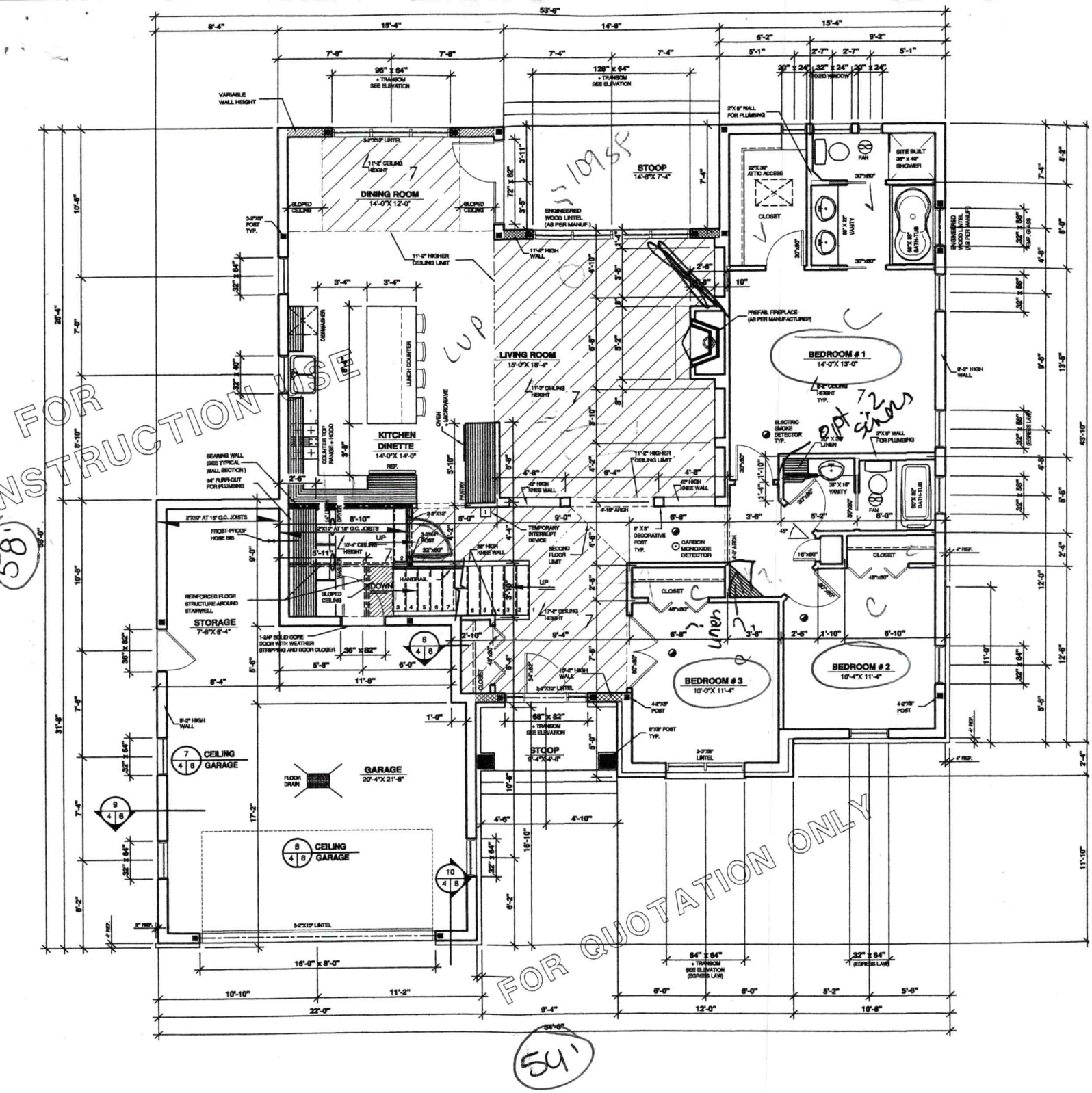
PRESIDENT 01/18/2019 — Signature of Owner(s) GEOFFREY BOWEN — Date

Signature of Witness DEBORAH M. BOWEN — Date 01/18/2019

Please return this signed form to the appropriate office:

Mooresville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

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



Acknowledgement of
Plans Submittal ONLY!

D M Bowen Date 1/6/20

Kenya Wilson Date 1-7-20

IREDELL COUNTY

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

APPLICATION NUMBER
241564
Issue Date: 01/17/2019

ZONING PERMIT

Residential

Parcel Number	Street Address	Jurisdiction
4648878041.000	133 DOROTHY LANE, MOORESVILLE, NC 28117	

Owner Information		Applicant Information	
Owner:	EFC ASSOCIATES INC	Applicant:	CAROLINA SOIL SEPTIC C
Address:	420 SOUTH MAIN STREET	Address:	162 WEST B ST
	TROUTMAN, NC 28166		KANNAPOLIS, NC 28081
Phone:	704-239-2022	Phone:	704-202-5791

Use Requested	Zone Code
SFD	

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

Remarks:

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

Applicant: _____ Date: _____

Permit Number	164912	TOTAL FEES:	$ 77.25