IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 223210

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

PIN # 4676-60-~~4963~~ 1495

APPLICANT: 10 Custom Cons. APPLICANT ADDRESS: Po Box 1703 Mooresville

SITE ADDRESS: 112 Brawley Woods Mooresville PHONE: 704-202-5794 ALT. PHONE:

SITE DIRECTIONS: Linwood, TL Brawley Woods, on R

SUBDIVISION: Brawley Woods SECTION: 2 LOT # 4 LOT AREA: 2 AC DESIGN FLOW: 480 L.T.A.R.: .25

Septic Tank 1000 (gal) STB 825 Date 4-24-17

Pump Tank (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 6 Linear Ft: 480'

Trench Width 36" Max. Trench Bottom Depth 32" Gravel Depth —

☑ New System ☐ Repair ☐ Expansion System Type: I II (III) IV V VI

System Description: 25% Reduction

Repair System Description: Panel Block

Maintenance Agreement Required: ☐ YES ☑ NO

☑ GRAVITY ☐ PRESSURE

☑ Residence No. Bedrooms 4

☐ Business No. Persons 8

☐ Other No. Employees

☑ Slab ☐ Crawl Space

☐ Basement w/plumbing ☐ Basement w/o plumbing

Water Supply: ☑ Private ☐ Public ☐ Community

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

No SAP

INITIAL SITE SKETCH

See Plan From CS & SC

AS BUILT SKETCH

Installed as shown on site plan

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**

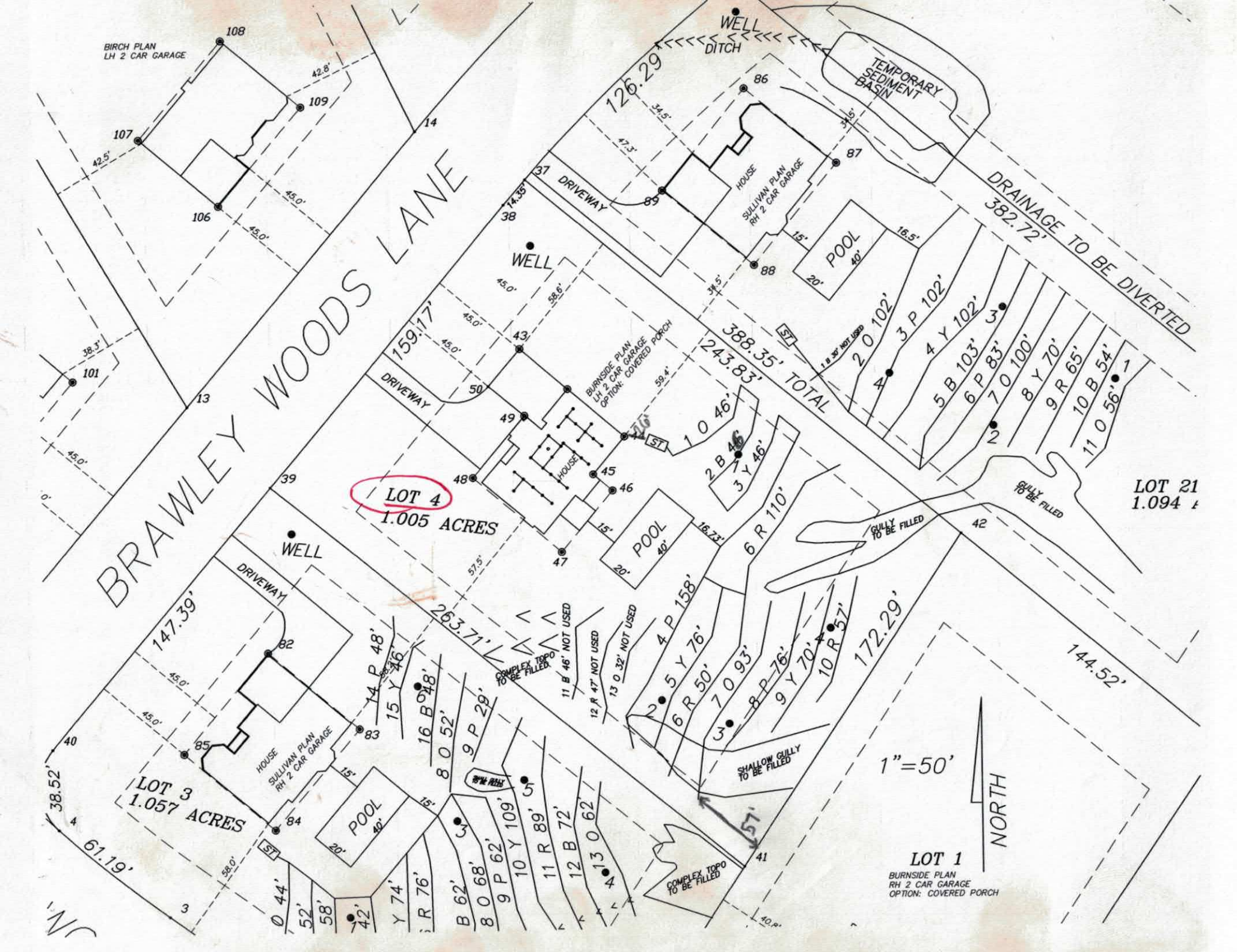
☐ **IMPROVEMENT PERMIT** *with plat valid without expiration.* ☑ **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* ☑ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: Date: 2-24-17 Installed by: Kevin w/ Rowan Septic

IMPROVEMENT PERMIT by: Date: 12-21-16 OPERATION PERMIT by: Paula Watson Date: 6-13-17

AUTHORIZATION TO CONSTRUCT by: Date: 2-6-17 Existing System Inspected by: Date:

Health Dept. Copy - WHITE Applicant (Final Approval) - YELLOW Applicant (Conditional Approval) - PINK


BRAWLEY WOODS LANE
LOT 4
1.005 ACRES
LOT 3
1.057 ACRES
LOT 1
BURNSIDE PLAN
RH 2 CAR GARAGE
OPTION: COVERED PORCH
LOT 21
1.094
BIRCH PLAN
LH 2 CAR GARAGE
SULLIVAN PLAN
RH 2 CAR GARAGE
BURNSIDE PLAN
LH 2 CAR GARAGE
OPTION: COVERED PORCH
HOUSE
POOL
WELL
DRIVEWAY
DITCH
TEMPORARY SEDIMENT BASIN
DRAINAGE TO BE DIVERTED
388.35' TOTAL
243.83'
126.29
382.72'
159.17'
147.39'
263.71'
172.29'
144.52'
61.19'
38.52'
GULLY TO BE FILLED
SHALLOW GULLY TO BE FILLED
COMPLEX TOPO TO BE FILLED
1"=50'
NORTH

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 4 bedroom single family residence
on Lot 4 of Brawley Woods 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

November 14, 2016
Job #: 2016-068
Design By: Adrian L. Pruett



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.
- 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 Low Pressure PPBPS 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:	Brawley Woods LLC
Address:	114 Morlake Dr., Suite 103 Mooresville, NC 28117
Client:	IQ Custom Construction
Address:	840 Edmiston Rd Mt. Ulla, NC 28125
Contact:	Bobby Robinson
Phone:	980-297-2329
County:	Iredell
Location:	BRAWLEY WOODS SUBDIVISION, LOT 4
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	NA

25% GRAVITY DESIGN INFORMATION

Drainfield Design Flow (gpd):	480
Loading/Soil Application Rate (gpd/ft.^{2}):	0.250
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
Total Lateral Length From Layout:	480
Total Lateral Length Required:	480
Trench Depth:	32 in. Lowside
Trench Width:	36 in.
TOTAL AREA TRENCH BOTTOM:	1440
Trench Spacing on Center:	9 ft.
Repair Trench Width:	9 ft.
Repair Trench Depth:	36 in. Lowside
Septic Tank Size:	1000 gal.
Estimated Supply Line Length:	5
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	1.80
Dosing Volume:	NA
Supply Manifold:	SERIAL DISTRIBUTION
Additional Comments:	Soil suitability was performed by CS&SC

BRAWLEY WOODS SUBDIVISION, LOT 4
FIELD LAYOUT SPECIFICATIONS

LAYOUT FOR 4 BEDROOM RESIDENCE

LINE #	FLAG COLOR	FS	ELEVATION	FLAGGED LINE LENGTH	############## DESIGN LINE LENGTH
TBM			NA		
HOUSE CRN		NA	NA		
P. TANK		NA	NA		
1	***ORANGE***	***NA***	***NA***	***46***	***46***
2	***BLUE***	***NA***	***NA***	***44***	***44***
3	***YELLOW***	***NA***	***NA***	***46***	***46***
4	***PINK***	***NA***	***NA***	***158***	***158***
5	***YELLOW***	***NA***	***NA***	***76***	***76***
6	***RED***	***NA***	***NA***	***110***	***110***
6	*RED*	*NA*	*NA*	*50*	*50*
7	*ORANGE*	*NA*	*NA*	*93*	*93*
8	*PINK*	*NA*	*NA*	*76*	*76*
9	YELLOW	NA	NA	70	70
10	RED	NA	NA	57	57
11	BLUE	NA	NA	46	NOT USED
12	RED	NA	NA	47	NOT USED
13	ORANGE	NA	NA	32	NOT USED
			Total	**951**	**826**

	LINE LENGTH	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
System	***480***	***ACCEPT.***	***0.250***	***25% RED.***	***GRAVITY***
Repair	346	*MOD.*	0.250	PPBPS	LOW PRESSURE

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

Comments: **Shallow gully to be filled along right side and rear of property.**
Complex topography along right property line to be filled or smoothed to contour.
Large, deep gully center rear flowing to left rear property corner to be filled.
Proposed house staked by surveyor.
Pool flagged in double yellow pin flags.
Iredell County has CS&SC's permission to change septic tank location and distribution type

DOSING CALCULATIONS

Location	BRAWLEY WOODS
Lot No:	4
Address:	
No. of Bedrooms	4
Design Flow	480 $^{gal}/_{day}$
LTAR	0.250 $^{gal}/_{ft^2\ day}$
25% RED. Expansion? (YES OR NO)	YES
Supply Line Length	5 ft.
Supply Line Volume	1.8 gal.
Required Feet of 25% RED. Line	480 ft.
Amount of Line from Layout	480 ft.
Gallons per Minute	NA $^{gal}/_{min}$
Septic Tank Capacity	1000 gal.
Minimum Septic Tank Capacity	1000 gal.
Lateral Line Volume	313.44 gal.

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

Sheet 1 of 1
PROPERTY ID #:
COUNTY: Iredell

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

OWNER: Brawley Woods LLC
ADDRESS: 114 Morlake Dr. Mooresville NC 28117
PROPOSED FACILITY: 4 Brm
PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: Brawley Woods Ln Mooreville Brawley Woods Lot 4
APPLICATION DATE
DATE EVALUATED: 11-11-16
PROPERTY SIZE: 1.005 ac
PROPERTY RECORDED: No

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
B 1	LSS 7%	0-10	B CL WFSBk	FrSSSPSE&P		48"	—	—	PS
		10-18	RBC WFABk	FiSPSE&P	Com Mn				.25
		18-48	RC WFSBk/ABk	FiSPSE&P	few rB, few Mn few rSaP				
B 2	LSS 7%	0-10	B SCL Gr	FrSSSPSE&P		48"	—	—	PS
		10-25	RC MFSBk	FrSSSPSE&P					.3
		25-40	RC/CL WFSBk	FrSSSPSE&P	com saP, few heavy Mn veins				
		40-48	YRCL WFSBk	FrSSSPSE&P	Com SaP				
B 3	LSS 5%	0-24	B CL WFSBk	FrSSSPSE&P	few mn, common/cl	48"	—	—	PS
		24-34	BRC WFSBk	FrSSSPSE&P	few Mn				.275
		34-44	RC WFSBk	FrSSSPSE&P					
		44-48	RC WFSBk	FrSSSPSE&P	few/com SaP				
B 4	LSS 5%	0-6	B SCL Gr	FrSSSPSE&P		48"	—	—	PS
		6-37	RC MFABk	FiSPSE&P	com SaP, few lithochromic Minerals				.275-.25
		37-48	RC WFABk/SBk	FiSPSE&P	common saP, few lithochromic minerals				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	Gravity 25%	LPPBPS
Site LTAR	0.25	0.25

OTHER FACTORS (.1946): None
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: CS & SC
OTHER(S) PRESENT: None

COMMENTS:

RECEIVED NOV 16 2016

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION*

(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)

Paid $350.00

1. APPLICATION FOR: ✓ **Improvement Permit** ___ **Authorization To Construct** ___ **Existing System Inspection**

****

223210

2. 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 check ( ) beside whichever is submitted if applicable ✓ **Custom Site Plan, Scaled no more than 1 Inch = 60 Feet**

3. Applicant Information:

IQ Custom Cont./CS&SC	PO Box 1703, Mooresville NC 28115	704-202-5791
Applicant Name	**Mailing Address**	**Home Phone #** / **Alternate Phone #**

Brawley Woods LLC	114 Barkley Dr, Suite 103, Mooresville NC 28117		
Owner Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**

4. Property Information:

112 Brawley Woods Ln	Brawley Woods	4
Street Address	**Subdivision Name**	**Section/Phase and Lot Number**

Driving Directions: Hwy 152/main St, TR on Linwood, past Teeter, TL on Brawley Woods Dr (new Rd), Lot on R, second lot

5. RESIDENTIAL Site Development Information: *(Check or Complete ALL that apply)*

(✓) New, Single Family Residence
( ) New, Multi-Family Residence
( ) Expansion of Existing Septic System
( ) Repair To Failing Septic System due to _____
( ) Other _____

Maximum Number of Bedrooms 4
Maximum Number of Occupants 8
If Expansion, Current Number of Bedrooms ___

( ) Crawl Space Foundation?
(✓) Concrete Slab Foundation?
( ) Basement w/Plumbing?
( ) Basement w/out Plumbing?

IF Non- Residential Site Development:
Type of Business _____
Square Footage of Building _____
Maximum Number of Employees _____
Maximum Number of Seats _____

6. Proposed Water Supply:

(✓) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

7. Desired Septic System Type: *(You may rank in order of preference, if any)* ( ) **EXISTING SYSTEM installed** ____ *Year*

(✓) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other_____

8. Please Answer The Following ( ) Yes (✓) No **Does the site contain any jurisdictional wetlands?**
To The Best of Your Ability: ( ) Yes (✓) No **Is any non-domestic sewage (i.e. industry) 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.

9. Signature: _____ 11-15-16
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) **DATE**

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL 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, Brantley Woods, LLC by Joel Patterson, am the legal owner(s) of the property located at Linwood Road, Mooresville, identified as PIN (Parcel Identification Number) LOT 4 located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Adrian Pruett, Carolina Soil & Septic consulting, 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.

Brantley Woods LLC by Joel Patterson — 10/28/16
Signature of Owner(s) Date

Signature of Witness — 10/28/16
Signature of Witness Date

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

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION*:

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:

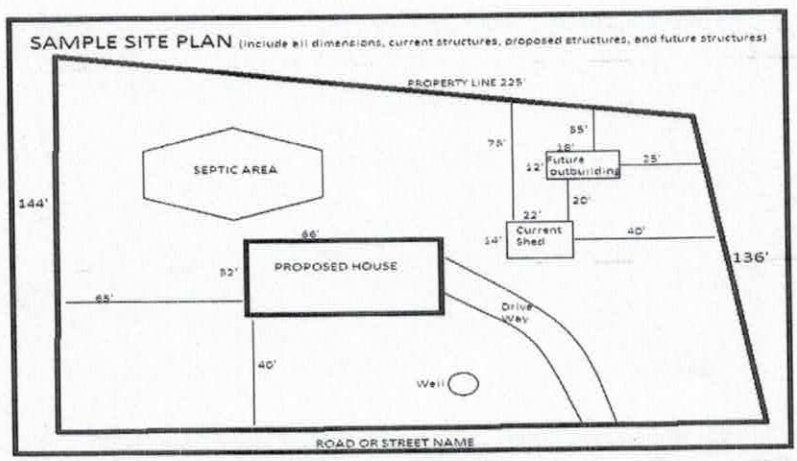
- ✓ **Property Line measurements are clearly identified…**
- ✓ **All proposed structures are indicated…**

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

- ✓ **Front and side setbacks from property line…**
- ✓ **Preferred driveway location and configuration, preferred well location…**
- ✓ **Area you prefer your septic system to be placed…**
- ✓ **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

See Site Plan

Signature: _____

REQUIRED property owner or owner's legal representative signature.

11-15-16

DATE

Plans Submittal ONLY

3/2/17 Date

Date 2017

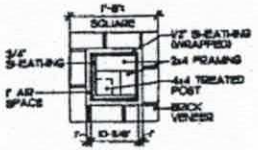
SQUARE FOOTAGE	
FIRST FLOOR	• 1590 sq. ft.
SECOND FLOOR	• 1235 sq. ft.
TOTAL	• 2825 sq. ft.
GARAGE	• 474 sq. ft.
FRONT PORCH	• 159 sq. ft.
REAR PORCH	• 60 sq. ft.
OPT. MASTER BAY	• 15 sq. ft.



OPTIONAL MASTER BAY

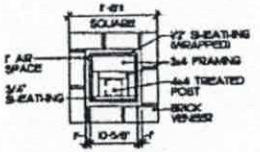
SCALE: 1/4" = 1'-0"

ALL EXTERIOR AND INTERIOR LOAD BEARING HEADERS SHALL BE (2)2x12's w/ S.Y.P. OR BETTER UNLESS NOTED OTHERWISE ON PLANS.
ALL HEADERS SHALL BE SUPPORTED WITH A MINIMUM OF (2) JACK STUD AND (1) KING STUD UNLESS NOTED OTHERWISE
ALL NON-LOAD BEARING HEADERS PER CODE.
HEADER NOTATION: S.Y.P. = SOUTHERN YELLOW PINE, S.P.F. = SPRUCE PINE FIR



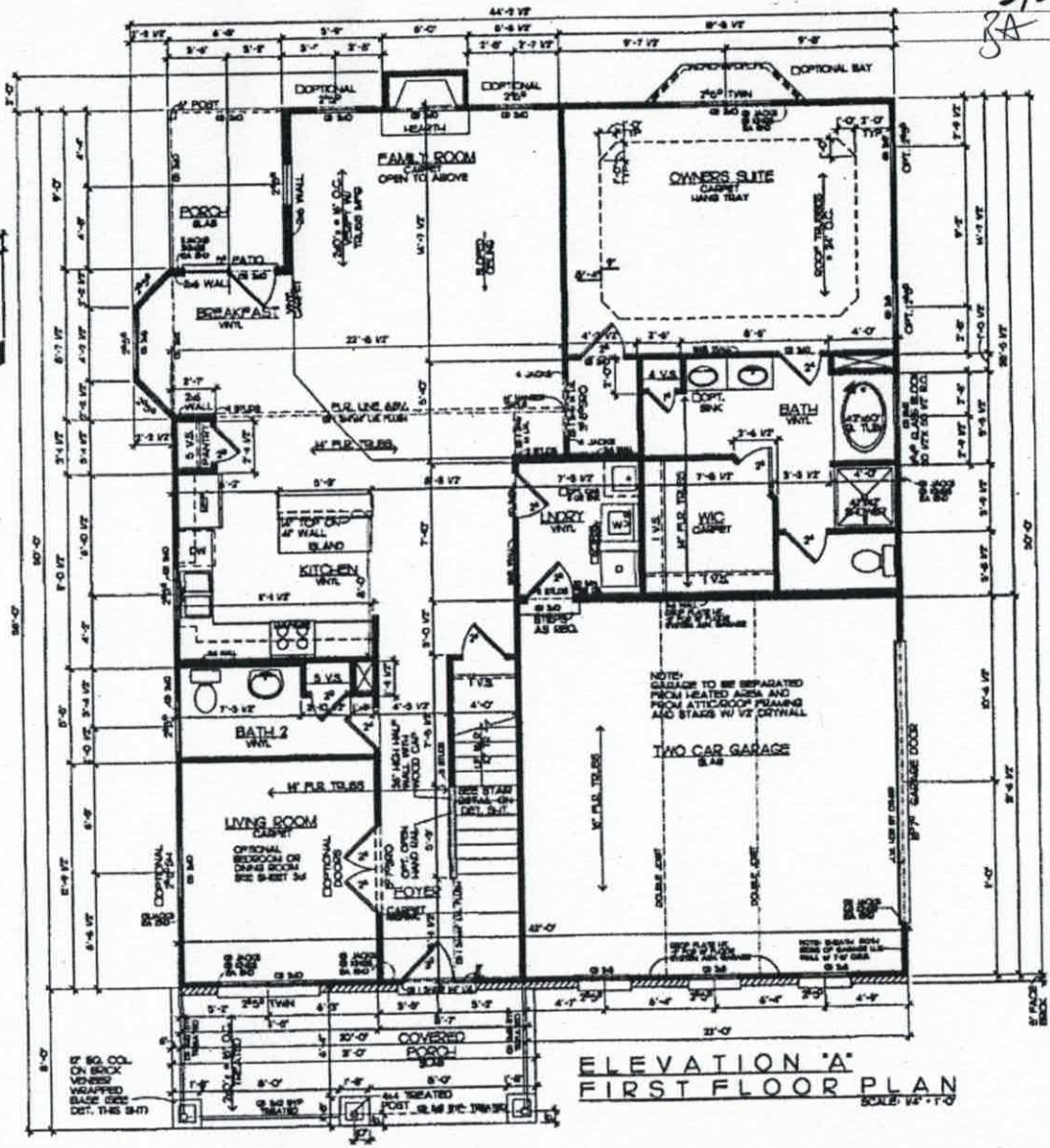
PORCH LEFT COLUMN SECTION

MIRROR FOR RIGHT COLUMN N.T.S.



PORCH CENTER COLUMN SECTION

N.T.S.



ELEVATION "A" FIRST FLOOR PLAN

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

PLAN 2825

FIRST FLOOR PLAN

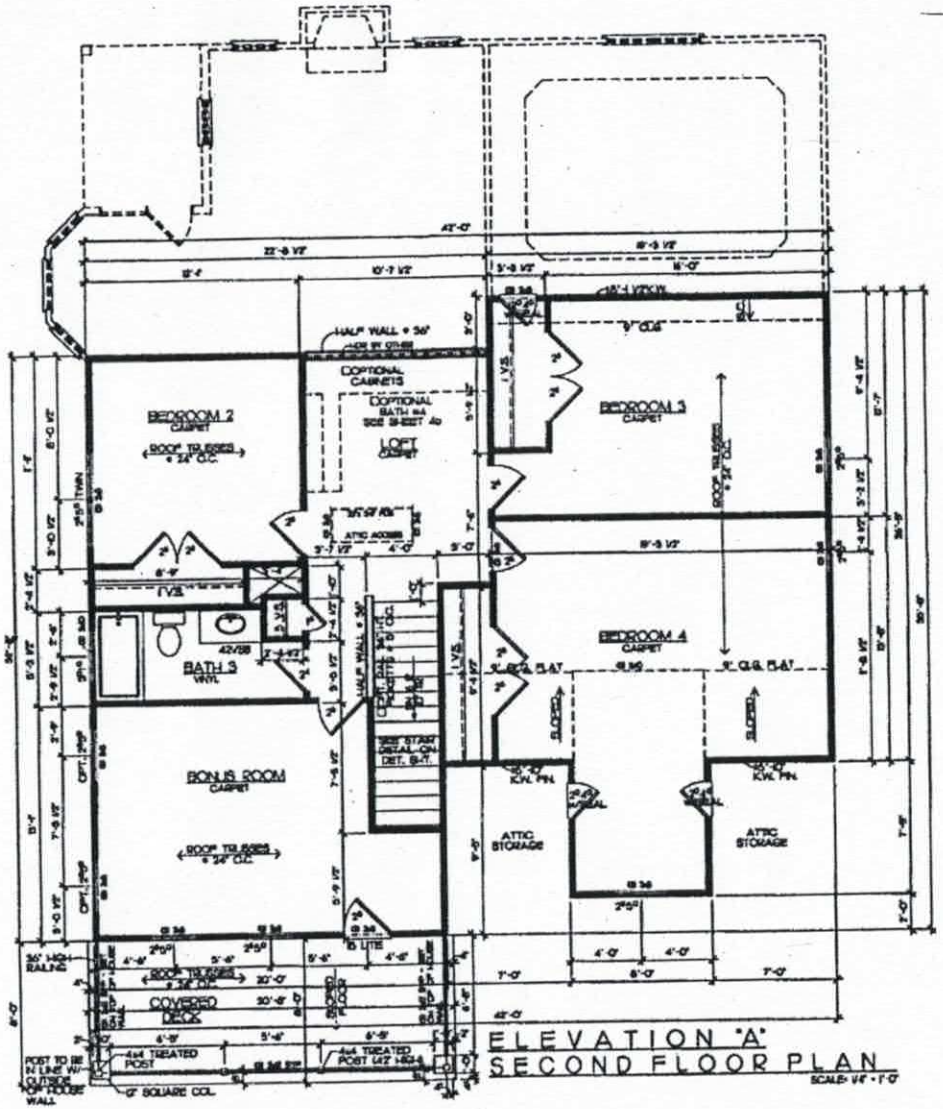
3a

Plans Submittal ONLY!

7/2/17 Date

SA

Z-6-17



ELEVATION "A"
SECOND FLOOR PLAN

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

ENGINEERING NOTES:
1) ALL EXTERIOR AND INTERIOR LOAD BEARING HEADERS SHALL BE (2)2x6's #2 S.Y.P. OR BETTER UNLESS NOTED OTHERWISE ON PLANS.
2) ALL HEADERS SHALL BE SUPPORTED WITH A MINIMUM OF 1 JACK STUD & (2) KING STUD UNLESS NOTED OTHERWISE
3) ALL NON-LOAD BEARING HEADERS PER CODE.
4) HEADER NOTATION: S.Y.P. = SOUTHERN YELLOW PINE S.P.F. = SPRUCE PINE FIR

PLAN 2825
SECOND FLOOR PLAN

M. W. G. BAZAAR

PLAN 2825

4a

IREDELL COUNTY

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

APPLICATION NUMBER
223210
Issue Date: 11/16/2016

ZONING PERMIT

Residential

Parcel Number	Street Address	Jurisdiction
4676604963.000	112 BRAWLEY WOODS LANE, STATESVILLE, NC 28115	

Owner Information	Applicant Information
Owner: BRAWLEY WOODS LLC	Applicant: CAROLINA SOIL SEPTIC C
Address: 114 MORLAKE DR STE 103 MOORESVILLE, NC 28117	Address: 162 WEST B ST KANNAPOLIS, NC 28081
Phone: - -	Phone: 704-202-5791

Use Requested	Zone Code
SFD	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
	35.00	35.00	15.00	15.00	BOWC	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	85901	TOTAL FEES:	$ 77.25