ICHD–ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 241683

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

PIN # 4732-16-2724

APPLICANT/OWNER: Smith Douglas Homes APPLICANT ADDRESS: P.O. Box 311 Midland, NC

SITE ADDRESS: 113 Carriage Hill Dr. Statesville NC PHONE: 704-578-4981 ALT. PHONE

SITE DIRECTIONS: Old Mtn Rd → Wallace Springs → Autumn Mist → L on Sierra Chase → R on Carriage Hill Dr.

SUBDIVISION: Autumn Brook SECTION: 2 LOT # 9 LOT AREA: 0.593

SAP CONTROLLED: [X] YES [ ] NO

DESIGN FLOW: 360 GPD L.T.A.R.: 0.30

Septic Tank	1000 (gal)	STB	768	Date	8-3-19	[X] New System [ ] Repair [ ] Expansion	System Type: I II (III) IV V VI	[X] Residence	No. Bedrooms 3
Pump Tank	1000 (gal)	PT	363	Date	5-10-19	System Description: PM - 25% Reduction		[ ] Business	No. Persons 6
Pump Make	Orenco	Model	PF-35	Serial #		Repair System Description: LP-PPBPS (50% Reduction)		[ ] Other	No. Employees
# Nitrification Fields	1	# Lines	4	Linear Ft.	300	Maintenance Agreement Required: [ ] YES [X] NO		[X] Slab	[ ] Crawl Space
Trench Width	36"	Trench Bottom Depth(Low side)	18"	Gravel Depth		[ ] GRAVITY [X] PRESSURE		[ ] Basement w/plumbing	[ ] Basement w/o plumbing

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

Comments / Conditions: Recommend pumping septic tank every 3-5 years. Direct house + any surface drainage away from all septic components. See soil notes from previous ICHD appvl dated 12-18-19.

INITIAL SITE SKETCH

This permit is issued pursuant to Sec 11(a) of SL 2018-114 using the signed + sealed LSS Evaluation Attached Here:

Design plans by The Oaks Group, PA Dated 6/17/19

Kathleen Saunders LSS# 1318

10.5' from house to PT, 15' from house to ST

9/26/19 Checked 2 tanks

AS BUILT SKETCH

9/30/19: 300 l.f. of TQ4W installed substantially as permitted.

L1 120 }
L2 60 } Verified OK by laser. 18" TB.
L3 70 } Installed substantially where permitted.
L4 50 }

10/29/19 Alarm OK. PM tape OK. 2 of Pressure Head set. Electrical OK. (2 breakers #19 + 21)
* House drain is leaking in pump tank and needs reinspection (Need Check Valve) Orenco fitting

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: 7/3/19 Installed by: Specialty Septic

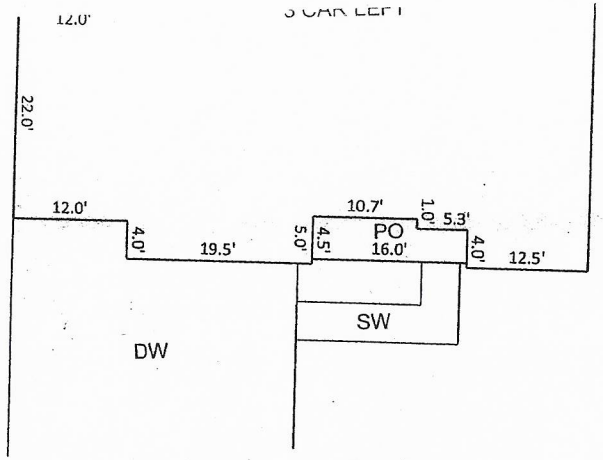
IMPROVEMENT PERMIT by: Date: 6/27/19 OPERATION PERMIT by: Benjamin A Butts Date: 10/30/2019

AUTHORIZATION TO CONSTRUCT by: Date: 6/27/19 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 inspector to confirm your inspection time.

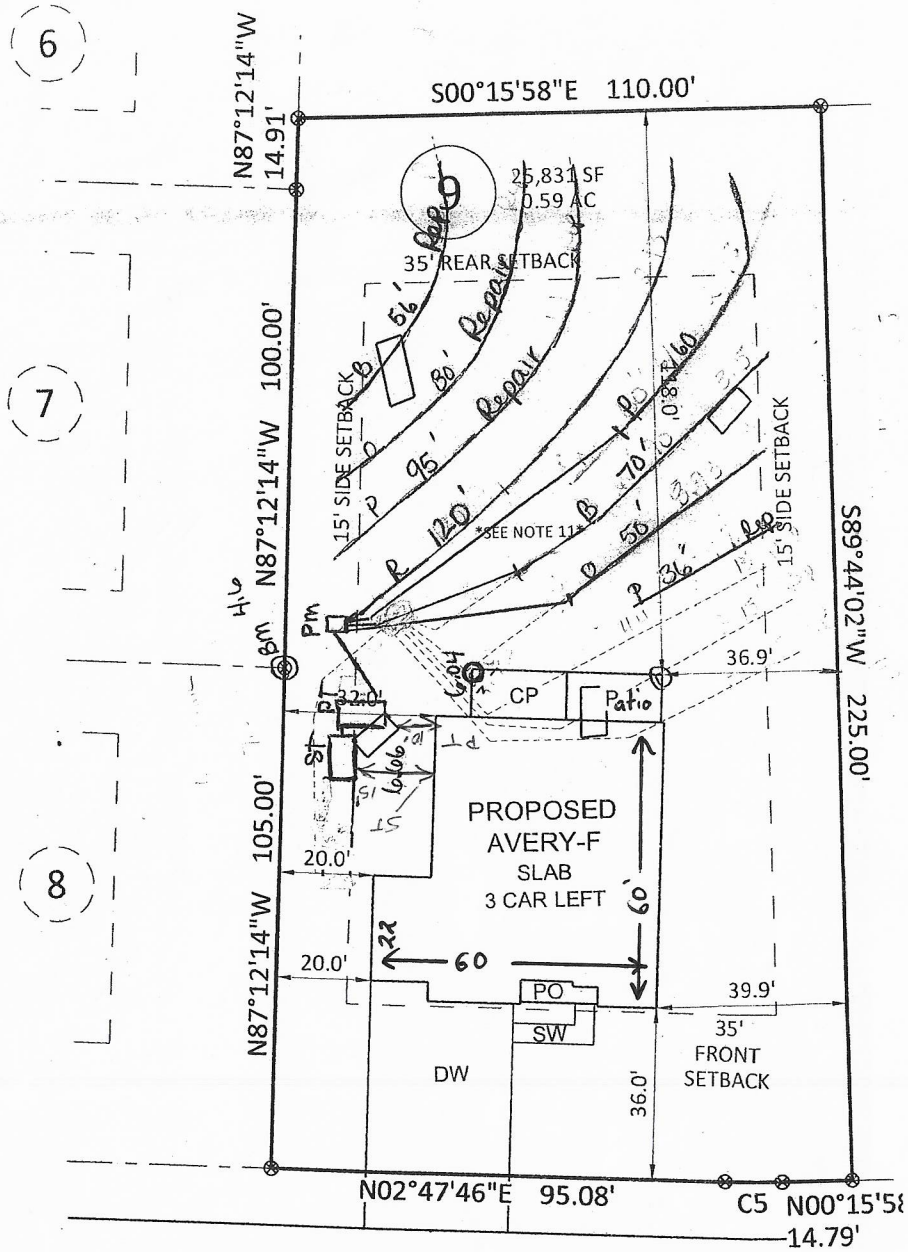
	Date	Initials
Drain Lines Checked	9/30/19	SL
Tanks Checked	9/26/19	MD
Pressure Manifold or Valve Box Checked	10/29/19	SL
Pressure Head Set ✱	10/29/19	SL
Electrical Checked	10/29/19	SL
Floats Set	10/29/19	SL
Alarm Checked	10/29/19	SL
Maintenance Contract Y / (N)	Not Required	

✱ - Needs to fix leaky check/gate valves (Orenco fitting) in pump tank and get favorable inspection prior to OP service SL



INSET SCALE: 1"=20'

50 - 1½ sch 80
60 - 1½ sch 40
70 - 1½ sch 40
120 - ¾ sch 40
300



B - 1.26
O - 2.46
P - 3.44
R - 4.77
P - 5.07
B - 5.84
O - 6.27
P - 6.74

NOTES:

1. THIS SURVEY WAS PREPARED BY BATEMAN CIVIL SURVEY CO., UNDER THE SUPERVISION OF STEVEN P. CARSON, PLS.
2. THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.
3. PROPERTY LINES SHOWN WERE TAKEN FROM EXISTING FIELD EVIDENCE, EXISTING DEEDS AND/OR PLATS OF PUBLIC RECORD, AND INFORMATION SUPPLIED TO THE SURVEYOR BY THE CLIENT
4. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES AND ALL BEARINGS ARE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM UNLESS OTHERWISE SHOWN.
5. THIS MAP IS NOT FOR RECORDATION AND SHOULD BE REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.
6. THE BASIS OF NORTH AND ALL EASEMENTS, RIGHTS-OF-WAYS, BUFFERS, SETBACKS AND ADJOINERS, ETC. REFERENCED IN TITLE BLOCK.
7. NO INVESTIGATION INTO THE EXISTENCE OF JURISDICTIONAL WETLANDS OR RIPARIAN BUFFERS PERFORMED BY THIS FIRM.
8. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
9. THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE "X" AS DEFINED BY HUD F.I.R.M. MAP 3710473200J DATED MARCH 18, 2008. FLOODPLAIN AND FLOODWAY SHOWN HEREON ARE SCALED GRAPHICALLY FROM SAID PANEL.
10. ZONING IS RA/R-20.
11. SEPTIC LOCATION INFORMATION IS APPROXIMATE AS TRACED FROM IREDELL COUNTY HEALTH DEPARTMENT PERMIT.
12. ALL LOTS ARE SUBJECT TO A 10' UTILITY & DRAINAGE EASEMENT AROUND THE PERIMETER OF EACH LOT.
13. 10' X 70' SIGHT TRIANGLES ARE LOCATED AT ALL INTERSECTIONS.
14. PROPERTY OWNER: SMITH DOUGLAS HOMES
    4293-D2 NC 24
    MIDLAND, NC 28107

CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD DIRECTION	CHORD
C5	225.00'	12.02'	N01°15'54"E	12.02'

0 20 40
SCALE:
1" = 40 ft.

P:\2017 Projects\170301 Autumn Brook SDC\dwg\170301 Autumn Brook SDC.dwg, 5/3/2019 1:45:54 PM, nwalker

Autumn Brook Lot 9 Fast Track Septic Spec Sheet

Number of Bedrooms	**3**
Basement or Crawl	**Concrete Slab**
Design Flow (gpd)	**360**
Primary System LTAR (gpd/ft2)	**0.3**
Primary System Type	**25% Reduction**
No. Lines	4 (See Table)
Total Linear Feet	300
Trench Width	3' min.
Trench Spacing	9' min.
Max Trench Depth Low Side	18"
Pump Required	Yes
Distribution Device	Pressure Manifold
Maintenance Agreement Required	No
Length and Diameter of Supply Pipe	20' of 2" SCH 40 PVC
Flow Rate through the system	32 gpm
Elevation head	Approx. 11.4'
Pressure head	2.0'
Friction head	1.0'
20% Contingency	2.9'
Total Head	17.3'
Pump Requirements	32 gpm @ 17.3' of head To be designed by installer.
Maximum Dosing Volume	180 gal -2.0 doses/day @ design flow
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	5.6
Repair System	**LP PPBPS**
Total Linear Feet	267
Repair Loading Rate	0.225 Per Existing permit

Table: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Elevation (Ft.)
1	Repair	Blue	LP PPBPS	56	1.26
2	Repair	Orange	LP PPBPS	80	2.46
3	Repair	Pink	LP PPBPS	95	3.44
4	System	Red	25% Reduction	120 endfed	4.77
5	System	Pink	25% Reduction	60 endfed	5.07
6	System	Blue	25% Reduction	70 endfed	5.84
7	System	Orange	25% Reduction	50 endfed	6.27
8	Repair	Pink	LP PPBPS	36	6.74
				Total System: 300'	
				Total Repair: 267'	

Tank	Red	1000 gal (2 compartment)	
Pump Tank	Red	1000	6.66
House	blue		6.04

	Manifold Information		
3/4	Tap Size (In.)	1/2	1/2
SCH 40	Tap Material	SCH 80 PVC	SCH 40
1	No. Taps	1	2.00
	Barrel Size (In.)	4	
	Barrel Material	SCH 80 PVC	
12.5	Flow (gpm)/Tap	5.5	7.11

Note: **All rod readings should be verified by installer prior to installation**
Tank Locations and distribution devices may be altered at the discretion of the ICHD

THE OAKS GROUP, PA

To: Iredell County Environmental Health Department (ICHD)

From: Kathleen Saunders, LSS

RE: ~~115~~ 113 Carriage Hill Dr

Date: June 17, 2019

Attached is the septic specification information required to permit ~~115~~ 113 Carriage Hill Dr for an Improvement Permit and/or Construction Authorization Permit in Iredell County via the Session Law 14 permitting process.

The attached information is not an Improvement Permit or an Authorization to Construct, and is only to assist the Iredell with permitting. The ICHD has to approve each lot and only the ICHD can issue these permits. The system should be installed according to the ICHD permits, policies, and NC Rules, which these specifications are in accordance with. If the ICHD wishes to change tank locations, distribution devices, etc they may do so at their discretion.

All information and specifications have been prepared in conjunction with ICHD permitting guidelines for the current lot owners to acquire an Improvement Permit and/or Authorization to Construct on this lot. It is ultimately the ICHD's responsibility to verify all specifications, **excluding** soil descriptions, before permitting and/or septic system installation.

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). The LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 11.(c). The LSS Evaluation contains sufficient information to produce design and construction features for an IP/CA, and the LSS contains the proper insurance with the proper coverage.

LICENSED SOIL SCIENTIST
KATHLEEN M. SAUNDERS
1313
STATE OF NORTH CAROLINA

Kathleen Saunders

RECEIVED JUN 1 9 2019

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

Paid $1200.00 # 241683

Application For:
( ) 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: ( ) Survey Plat, scaled no more than 1 inch = 60 feet
( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Place an (X) beside whichever is submitted if applicable

Applicant Information: (PRINT CLEARLY)

Applicant Name: Smith Douglas Homes Address: PO Box 311 Midland NC Zip: 28107
Applicant Email: _____ Phone: _____ Alt. Phone: _____
Owner Name: Same Address: _____ Zip: _____
Owner Email: _____ Phone: _____ Alt. Phone: 704-578-4951 (LSS)

Property Information:

Street Address: 113 ~~115~~ Carriage Hill Dr
Subdivision Name: Autumn Brook Section/Phase: _____ Lot Number: 9
Driving Directions: Old Mountain Rd, Wallace Springs, Autum Mist, Sierra Chase

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

(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: 3
Maximum Number of Occupants: 6
( ) Swimming Pool
( ) Other Addition/Structure: _____
Non-Residential Site Development: Type of Business: _____
Square Footage of Building: _____ Max. Number of Employees: _____ Max. Number of Seats/Beds/Other: _____

CHECK FOUNDATION TYPE

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

Water Supply: ( ) Replacement Well – Reason: _____
( ) Multi-connection Well Number of Houses: _____ Number of Persons: _____
( ) New Well ( ) Existing Well ( ) Community Well (X) 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: _____

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: Kathleen Saunders 6-17-19
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

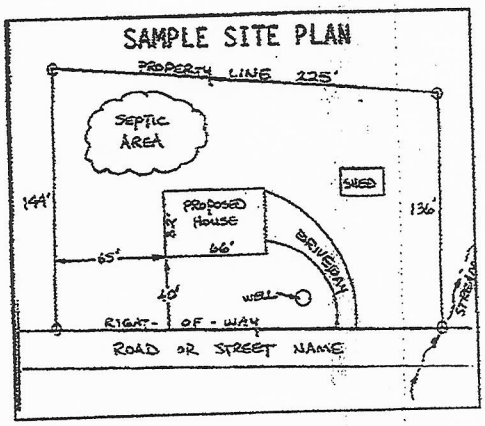
IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

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 OR WELL PERMIT!!!*

Place an (X) beside each item as you complete the site plan:

- (✓) Property Line measurements are clearly identified
- (✓) All proposed structures are indicated
- (✓) Front and side setbacks from property line
- (✓) Preferred driveway location
- (✓) Preferred well location
- (✓) Preferred septic system location
- (✓) 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)

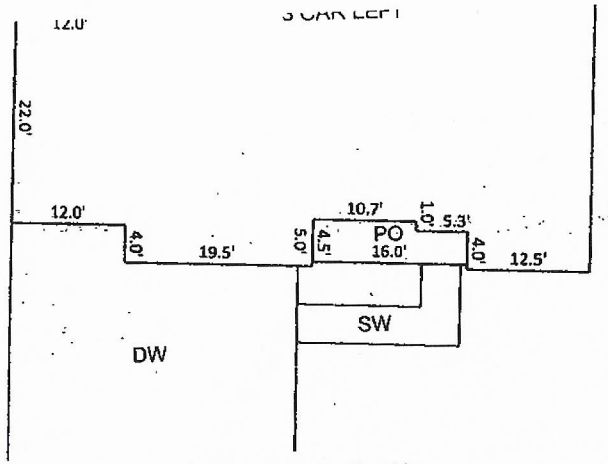
USE THIS SPACE TO DRAW YOUR SITE PLAN

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

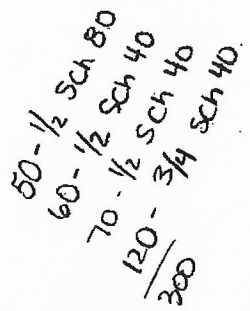
Please see Attached

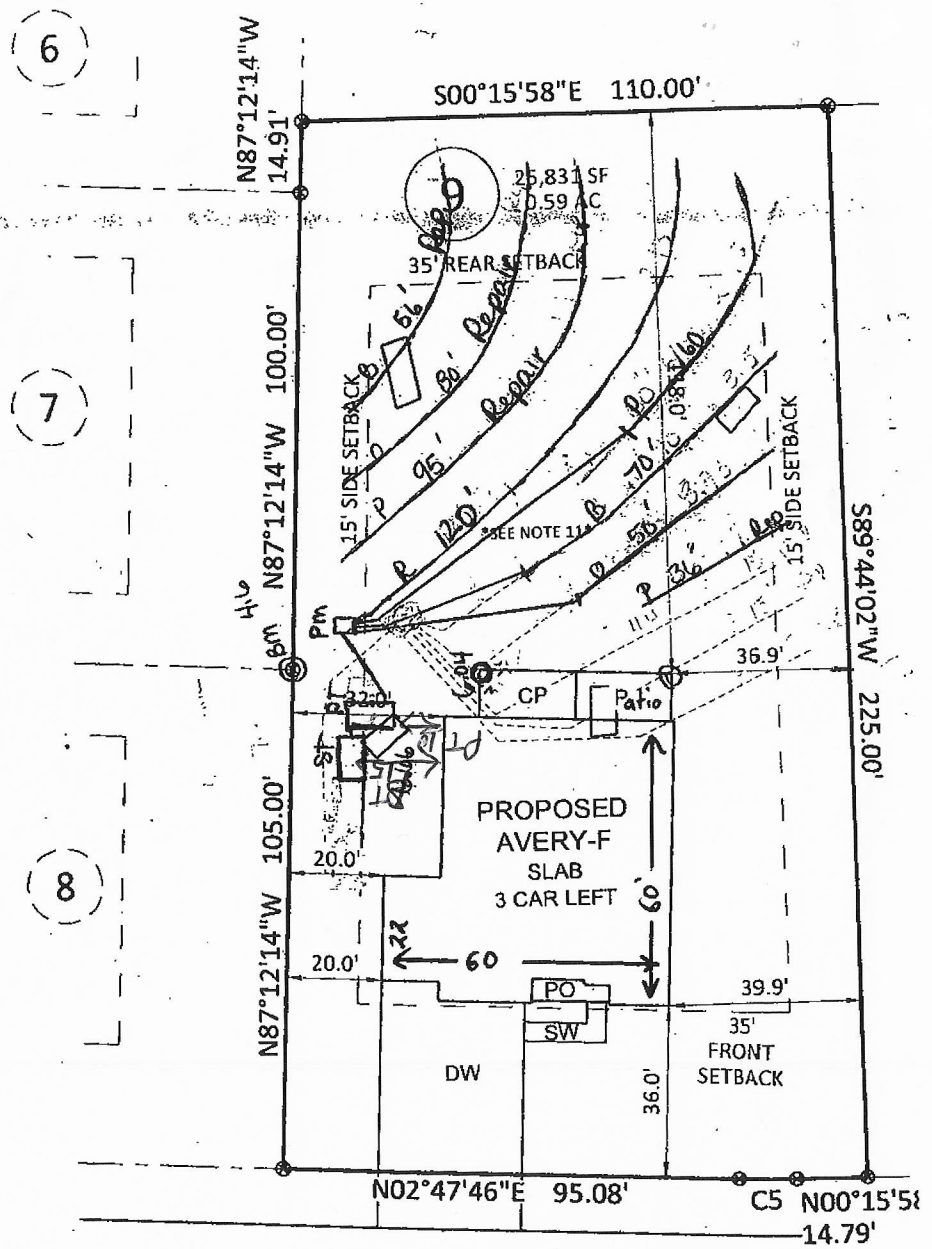
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Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

6-17-19
DATE



INSET SCALE: 1"=20'





B - 1.26
O - 2.46
P - 3.44
R - 4.77
P - 5.07
B - 5.84
O - 6.27
P - 6.74

CARRIAGE HILL DRIVE
PUBLIC 50' R/W

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4293-D2 NC 24
MIDLAND, NC 28107

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SCALE:
1" = 40 ft.

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AUTHORIZATION TO ACT AS AGENT FOR OWNER

Any application/document/permit requiring a signature must be signed by the property owner or their authorized agent. This form shall be provided by the owner to allow specified individuals to act as agents for the owner. This form allows the specified individuals to sign or receive any application/document/permit on behalf of the owner. This form allows the authorized agent to make decisions on behalf of the owner pertaining to modifications of permits in the field. It is the responsibility of the owner to assure that any/all permit conditions specified on permits issued by this Division are followed.

I, Ron Willing/Smith Douglas Homes, am the legal owner of the property located at 113 Carriage Hill Dr, identified as PIN(Parcel Identification Number)_____, located in Iredell County, North Carolina.

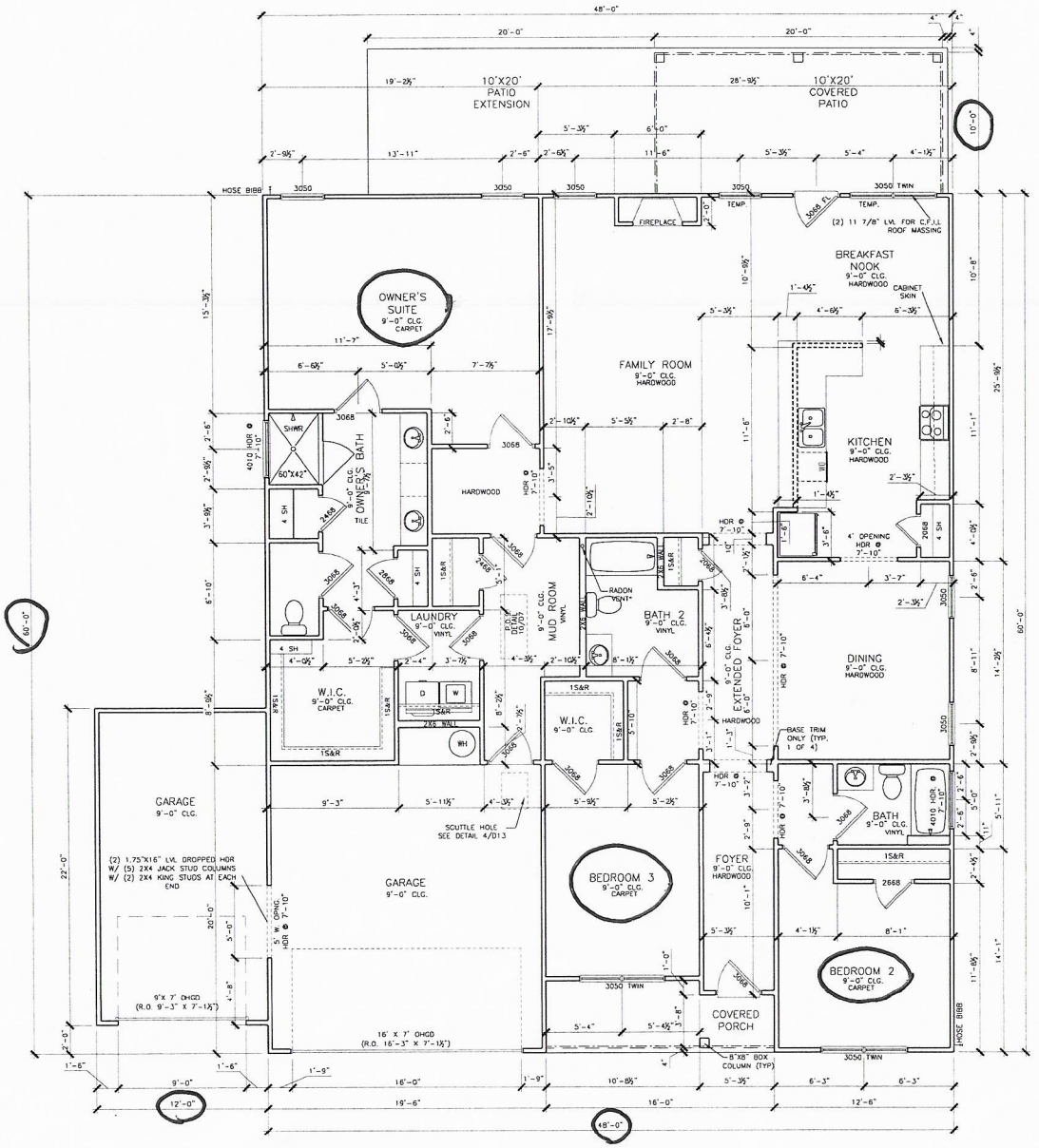
I do hereby authorize (print authorized agent/company name) The Oaks Group, _____, _____, _____, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

1. Improvement Permit (IP)/ Authorization to Construct (AC).
2. Application for soil-site evaluation (new/repair).
3. Application/permit for water well/well abandonment.
4. Application for existing system.
5. Application for Improvement Permit (IP)/ Authorization to Construct (AC).

I agree to abide by any and all decisions and/or conditions between the agent acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division. This form must be fully executed before the individual's specified above will be recognized as the authorized agent.

Signature of Owner — Date: 6-17-19

Signature of Witness — Date



FIRST FLOOR PLAN

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

AUTUMN BROOK
LOT 9

Acknowledgement Of Plans Submittal ONLY!

Date 5/31/19

Tom Shuck Date 6/27/19

© SMITH DOUGLAS HOMES 2019

REVISION	DATE	BY

SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FLOOR PLAN
FIRST FLOOR
AVERY

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
www.smithdouglas.com

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