11:00

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 | M.A.D. Mooresville Office (704) 660-3625

PERMIT # 222636

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

PIN # 4646415812

APPLICANT/OWNER: Brooke + Aaron Marin | APPLICANT ADDRESS: 107 Knox Haven Dr.

SITE ADDRESS: 107 Knox Haven Dr. Mooresville, NC | PHONE: 704-578-4951 Kathleen | ALT. PHONE N/A

SITE DIRECTIONS: Williamson → R on Alcove Rd → R on Catalina → L on Knox Haven | SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Knox Haven | SECTION: N/A LOT # 1 LOT AREA: .58 AC | DESIGN FLOW: 480gpd L.T.A.R.: .3

Septic Tank 1060 (gal) STB 1012 - 1000 Date 5/1/16

Pump Tank 1000 (gal) PT 17 - 1000 Date 4/22/17

Pump Make Goulds Model WE0512MU Serial # D1734983

Nitrification Fields 1 # Lines 4 Linear Ft 267'

Trench Width 24" Trench Bottom Depth(Low side) 36" Gravel Depth N/A

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

System Description: LPI PPBPS

Repair System Description: LP PPBPS

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:

INITIAL SITE SKETCH

See The Oaks Group Design

AS BUILT SKETCH

Poly lock filter present.
Syndre filter present in pump tank.

Pump tank 1/3 Horsepower

L1 = 28'
L2 = 68'
L3 = 98'
L4 = 75'

267'

Installed as drawn.

	Date	Initials
Drain Lines Checked	7/14/17	M.A.D.
Tanks Checked	7/14/17	M.A.D.
Pressure Manifold or Valve Box Checked	7/14/17	M.A.D.
Pressure Head Set	7/14/17	M.A.D.
Electrical Checked	1/20	BB
Floats Set	7/14/17	M.A.D.
Alarm Checked	7/14/17	M.A.D.
Maintenance Contract Y / N	1/20	BB
Comments:		

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: [signature] Date: 7/7/17

IMPROVEMENT PERMIT by: Kayla Wilson Date: 6-26-17

AUTHORIZATION TO CONSTRUCT by: Kayla Wilson Date: 6-26-17

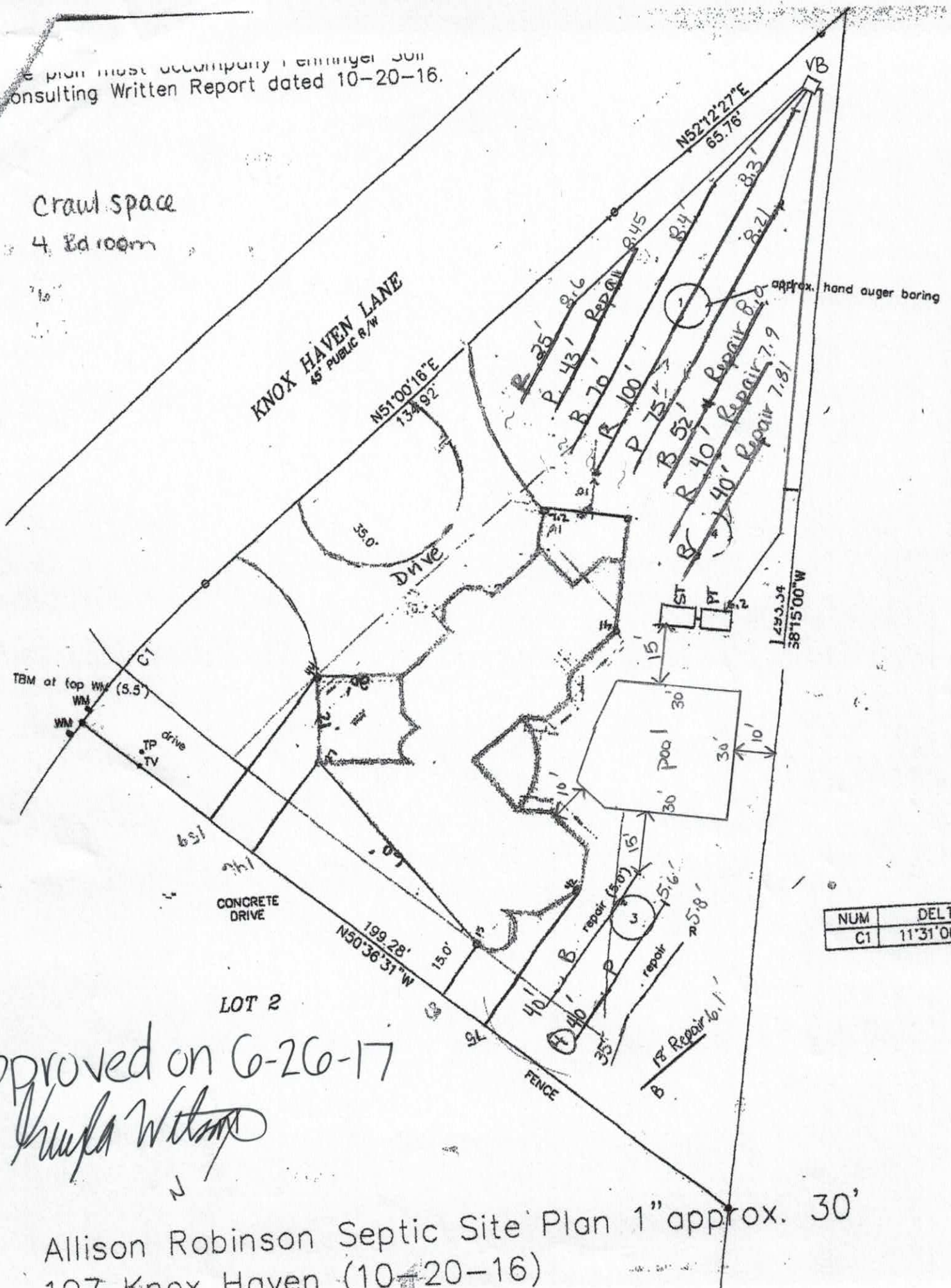
Installed by: Steve Jordan

OPERATION PERMIT by: Benjamin A. Bottoms Date: 1/20/2017

Existing System Inspected by: Date:

...e plan must accompany Pennington Soil
...onsulting Written Report dated 10-20-16.

Crawl space
4 Bedroom



Approved on 6-26-17

N

Allison Robinson Septic Site Plan 1" approx. 30'
107 Knox Haven (10-20-16)

THE OAKS GROUP, PA

To: Iredell County Environmental Health Department (ICHD)

From: Kathleen Saunders, LSS

RE: 107 Knox Haven

Date: June 19, 2017

Attached is the septic specification information required to permit the 107 Knox Haven Dr for an Improvement Permit and/or Construction Authorization Permit in Iredell County via the Expedited Review Process.

The attached information is not an Improvement Permit or an Authorization to Construct, and is only to assist the ICHD 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, including soil descriptions, before permitting and/or septic system installation.

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

Kathleen Saunders

Knox Haven Lane Fast Track Septic System Information

Number of Bedrooms	4
Basement or Crawl	**Crawl Space**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3 (per existing)
Primary System Type	**LP PPBPS**
No. Lines	4 (See Table)
Minimum Linear Feet	267
Total Linear Feet	270
Trench Width	2' min.
Trench Spacing	8' min.
Trench Depth (low side)	36"
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	130' of **2**" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	31 gpm
Elevation head	Approx: 6 ft
Pressure head	3 ft
Friction head	2.3 ft
20% Contingency	2.26 ft
Total Head	13.56 ft
Pump Requirements	31 gpm @ 13.6' of head To be designed by installer.
Maximum Dosing Volume	223.2 gal -2.2 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	approx. 7.2 min.
Check Valve	no
Siphon Break hole	yes
Repair System	**LP PPBPS**
Total Linear Feet	308
Repair LTAR	0.3

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Table 1: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elev. (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	Red	LPPPBPS	25 endfed	8.6	6	6	1 per panel	5/32"
2	Repair	Pink	LPPPBPS	43	8.45				
3	System	Blue	LPPPBPS	70 endfed	8.4	16	16	1 per panel	5/32"
4	System	Red	LPPPBPS	100 endfed	8.3	23	23	1 per panel	5/32"
5	System	Pink	LPPPBPS	75 endfed	8.21	17	17	1 per panel	5/32"
6	Repair	Blue	LPPPBPS	52	8				
7	Repair	Red	LPPPBPS	40	7.9				
8	Repair	Blue	LPPPBPS	40	7.81				
9	Repair	Blue	LPPPBPS	40	5				
10	Repair	Pink	LPPPBPS	40	5.6				
11	Repair	Red	LPPPBPS	35	5.8				
12	Repair	Blue	LPPPBPS	18	6.1				
						Total: 62	Total: 62 (1 in each panel turned up)		
				Total System: 270'					
				Total Repair: 308'					

Tank	Red	1000 gal (2 compartment)	
Pump Tank	Red	1000 gal.	6.30
House	Pink		6.50

Note: **Tanks and Distribution devices can be altered at the ICHD's discretion**
Rod Readings should be verified by installer before installation
Slope across system area is less than 2%, lines stacked 8 ft on center
Shape system area to shed surface water away from drainfield

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:

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

OWNER: Allison Robinson
ADDRESS: 107 Knox Haven
PROPOSED FACILITY: 4 BR
LOCATION OF SITE: Lot 1 Knox Haven
APPLICATION DATE 10-20-16
DATE EVALUATED: 10-19, 10-3
PROPOSED DESIGN FLOW (.1949): 480
PROPERTY SIZE: .58 AC
PROPERTY RECORDED: yes
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

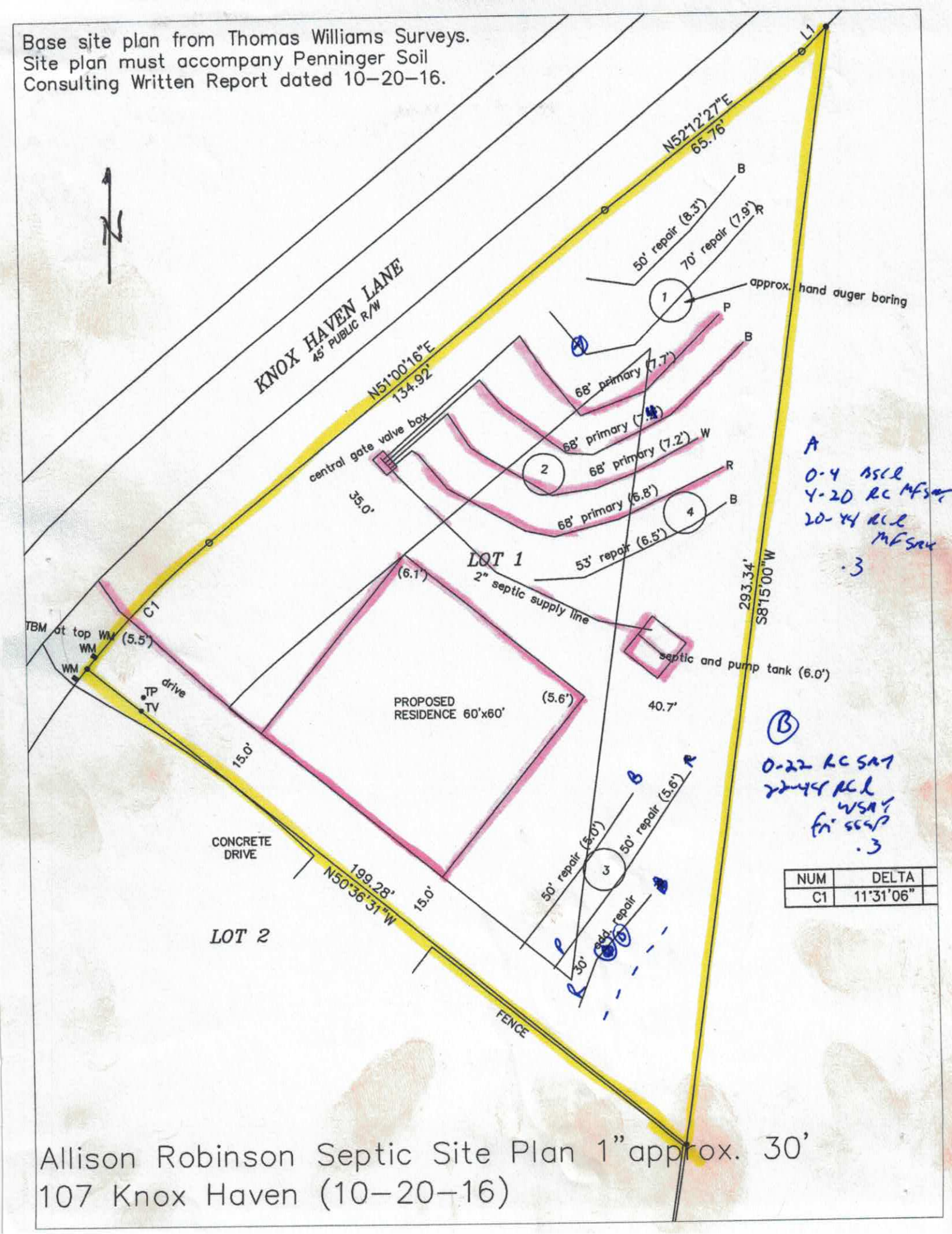
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	4/H CS	0-3	wsbk cl	fr ss/se	mbr				-3
		3-26	msbk c	fr ss/se	w				
		26-48	msbk c/cl	fr ss/se	rd	ff	SAP		
2	C/H CS	0-48	msbk c-mc cl	fr ss/se	rd	f yell 18 to			-3
3	2 -5	0-48	msbk cl/cl	fr ss/se	w	ff sap			-3
		48-60	msbk c/cl	fr ss/se	rd	f sap w			
4	4/H CS	0-48	msbk c	fr ss/se	rd	f sap			PS -3

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	T&S	T&S
Site LTAR	-3	-3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: PEP
OTHER(S) PRESENT: must be approved by LCHD

COMMENTS:

Updated February 2014


Base site plan from Thomas Williams Surveys.
Site plan must accompany Penninger Soil
Consulting Written Report dated 10-20-16.
KNOX HAVEN LANE
45' PUBLIC R/W
N52°12'27"E
65.76'
L1
N51°00'16"E
134.92'
central gate valve box
35.0'
50' repair (8.3')
70' repair (7.9')
approx. hand auger boring
68' primary (7.7')
68' primary (7.4')
68' primary (7.2')
68' primary (6.8')
53' repair (6.5')
LOT 1
2" septic supply line
(6.1')
C1
TBM ot top WM (5.5')
WM
WM
TP
TV
drive
PROPOSED
RESIDENCE 60'x60'
(5.6')
septic and pump tank (6.0')
40.7'
293.34'
S8°15'00"W
15.0'
CONCRETE
DRIVE
199.28'
N50°36'31"W
15.0'
50' repair (5.0')
50' repair (5.6')
30' add. repair
LOT 2
FENCE
A
0-4 BSCL
4-20 RC MFSA
20-44 RCL
MFSA
.3
B
0-22 RC SA1
22-44 RCL
WSA1
Fri SSCP
.3
NUM
DELTA
C1
11°31'06"
Allison Robinson Septic Site Plan 1" approx. 30'
107 Knox Haven (10-20-16)

RECEIVED JUN 19 2017

Limited Redraw

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 1: APPLICATION FORM

House plans on file

Paid $75.00

Application For:

(X) Septic Improvement Permit ( ) New Well Permit (X) Authorization to Construct ( ) Well Repair Permit ( ) Existing System Inspection ( ) Well Abandonment ( ) Septic System Repai

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

#222636

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: (X) 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

contact Kathleen Saunders (704) 578-4951

Applicant Information:

Applicant Name: Brooket Aaron Marin **Address:** 107 Knox Haven Dr **Phone:**

Owner Name: ~~Keith Bishop~~ same **Address:** **Phone:**

Property Information:

Street Address: 107 Knox Haven Mooresville 28117

Subdivision Name: Knox Haven **Section/Phase:** **Lot Number:** 1

Driving Directions: Williamson, Alcove Rd R on Catalina Dr, L on Knox Haven

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

( ) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 8
( ) Swimming Pool
( ) Other Addition/Structure:

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

Non-Residential Site Development:

Type of Business:
Square Footage of Building:
Maximum Number of Employee:
Maximum Number of Seats/Beds/Other:

Water Supply:

(X) 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:

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 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: Emma Holt 6-19-17

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

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, Marin Developmet Co, am the legal owner of the property located at 107 Knox Haven Mooresville, identified as PIN(Parcel Identification Number) 4646 41 5812, located in Iredell County, North Carolina.

I do hereby authorize (print authorized agent/company name) Kathleen Saunders, _____, _____, _____, _____, 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.

_____ 3/16/17
Signature of Owner Date

_____ 3/16/17
Signature of Witness Date

RECEIVED DEC 15 2016

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 1: *APPLICATION FORM*

Application For: ( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
( ) Septic Improvement Permit (✓) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repa

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SIT IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTE APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAIL

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 fee

Place an (X) beside whichever is submitted if applicable

Applicant Information:

Applicant Name: Aaron R. Marin **Address:** 107 Knox Haven, Mooresville, NC **Phone:** 7046344057

Owner Name: Aaron R. Marin **Address:** 107 Knox Haven, Mooresville, NC **Phone:** 7046344057

Property Information:

Street Address: 107 Knox Haven Ln, Mooresville, NC 28117

Subdivision Name: Knox Haven **Section/Phase:** _____ **Lot Number:** 1

Driving Directions: Exit 33 off I-77, West on Williamson Rd, Left on Alcove, Right on Catalina, Left on Knox Ha

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

(✓) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

Maximum Number of Bedrooms: 4 beds
Maximum Number of Occupants: 5 people
(✓) Swimming Pool
( ) Other Addition/Structure: _____

(✓) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbin

Non-Residential Site Development:

Type of Business: _____
Square Footage of Building: _____
Maximum Number of Employee: _____
Maximum Number of Seats/Beds/Other: _____

Water Supply:

( ) 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: _____

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

12/14/2016
DATE

Public Health

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, Aaron R. Marin, am the legal owner(s) of the property located at 107 Knox Haven Ln, Mooresville, NC, identified as PIN (Parcel Identification Number) 4646-41-5812, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Vera Lizano Barrantes Marin Development Co., 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.

[signature]	12/14/16	[signature]	12/14/16
Signature of Owner(s)	Date	Signature of Witness	

Date

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:

X Property Line measurements are clearly identified...

X 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

X Front and side setbacks from property line...

X Area you prefer your septic system to be placed...

X Preferred driveway location and configuration, preferred well location...

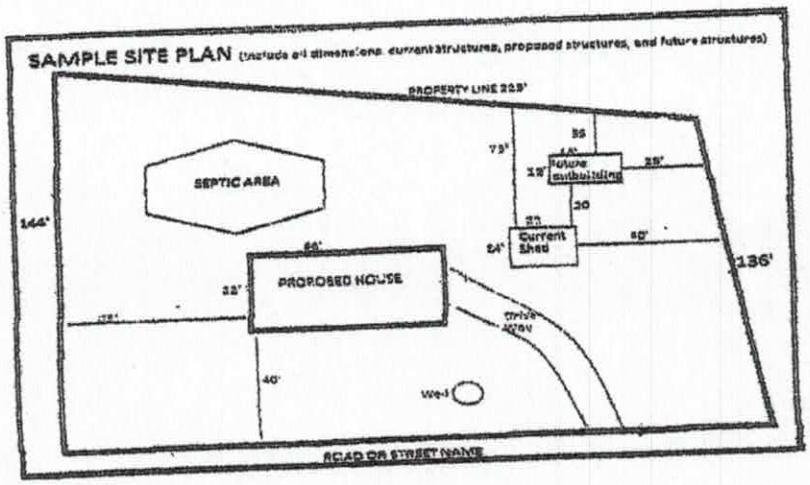
X North arrow, or other sufficient indicator of direction...

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

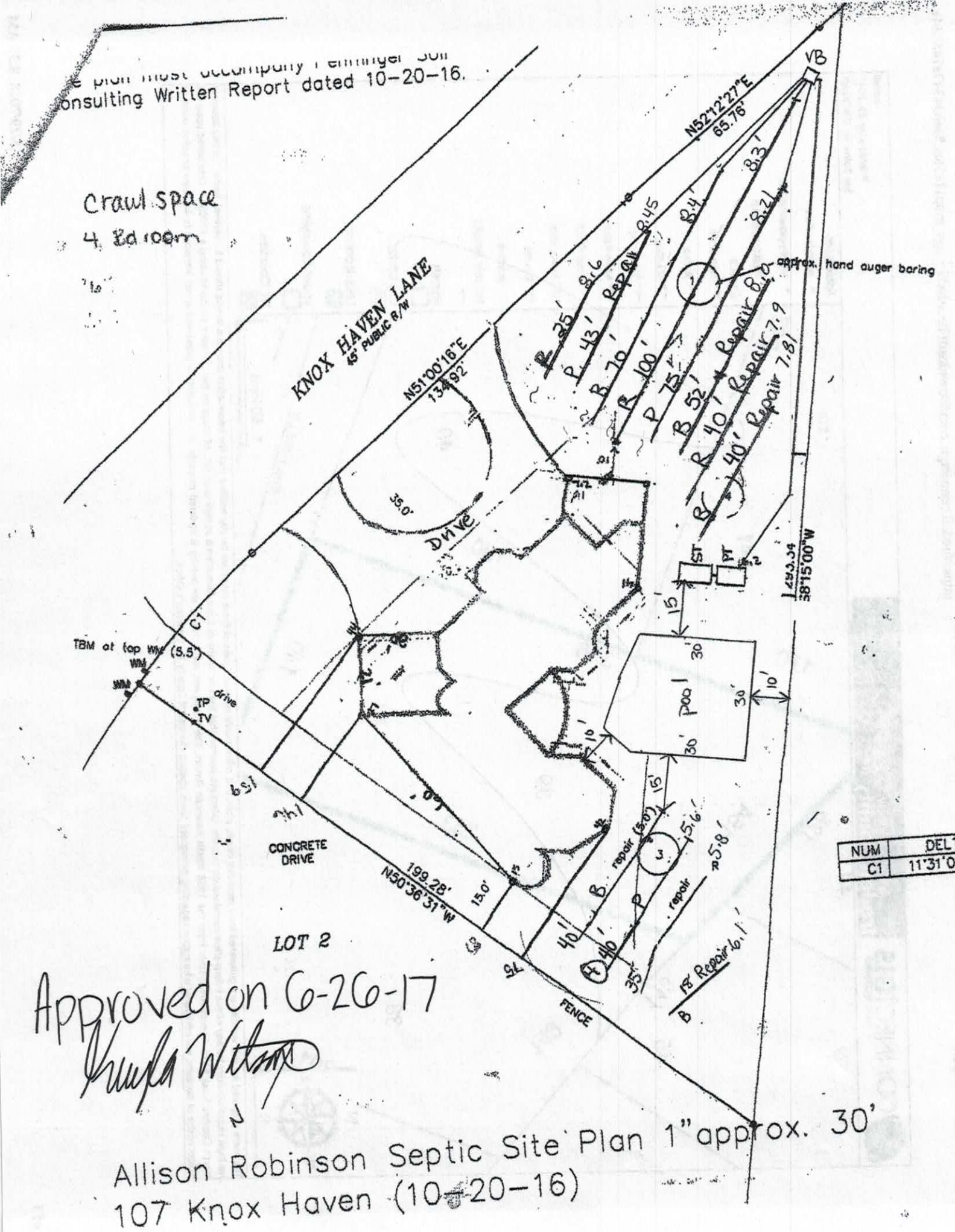
Please see attached site plan

Signature: Emma Hall

REQUIRED property owner or owner's legal representative signature.

6-19-17

DATE



Approved on 6-26-17

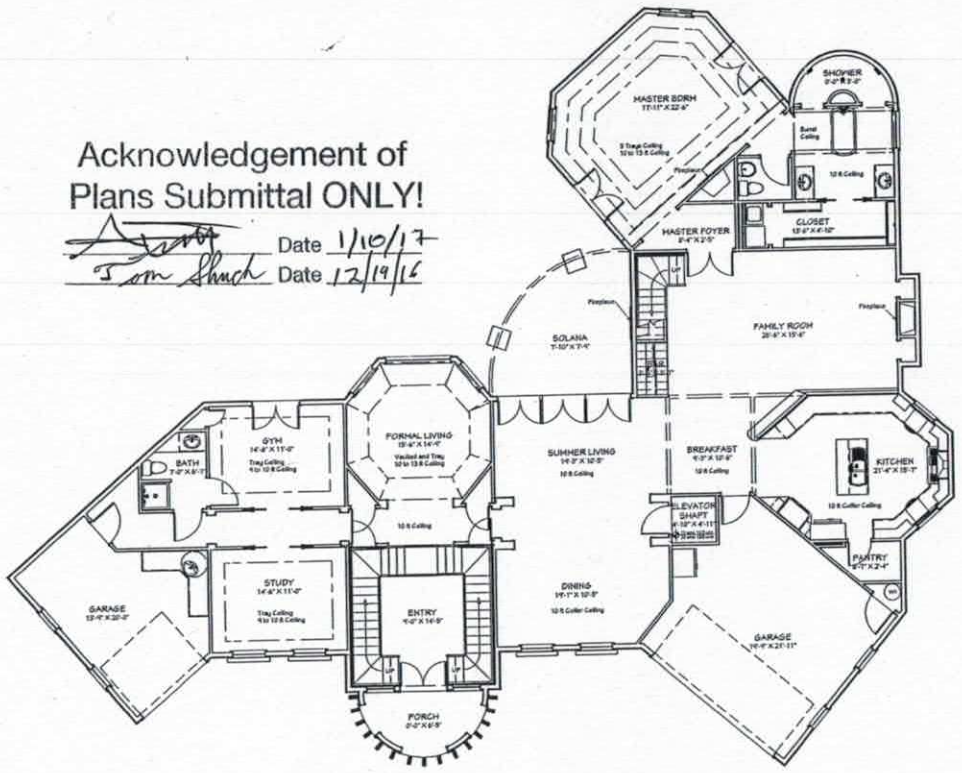
Allison Robinson Septic Site Plan 1" approx. 30'

107 Knox Haven (10-20-16)

Acknowledgement of
Plans Submittal ONLY!

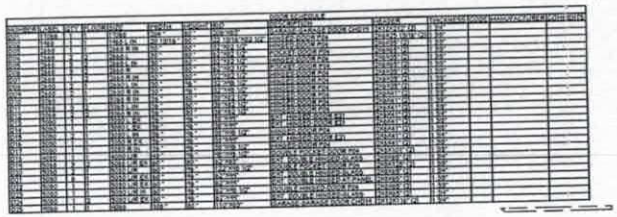
Date 1/10/17

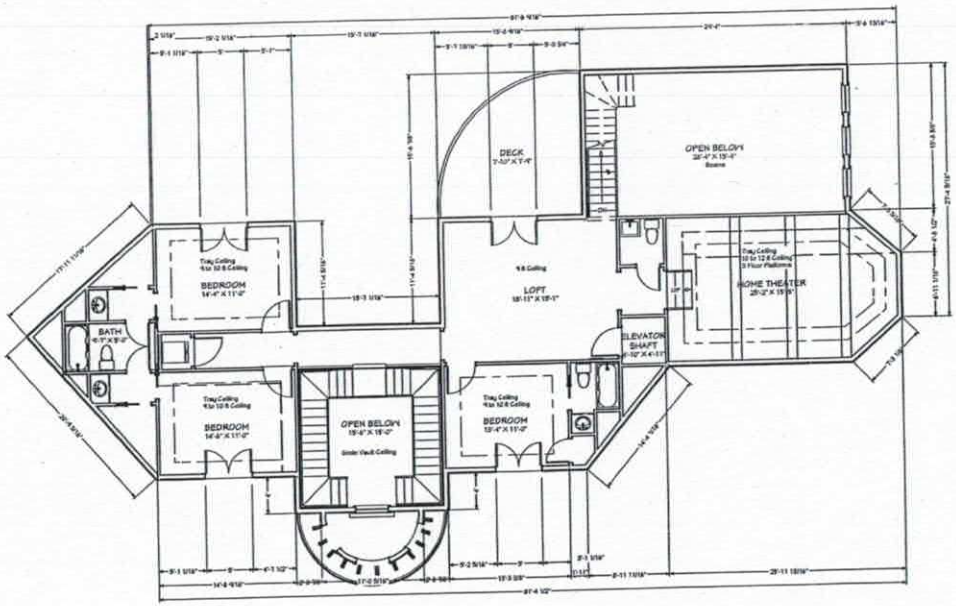
Tom Shuck Date 12/19/16



LIVING AREA
3526 SQ FT

| FINISH SCHEDULE | | |





LIVING AREA
1104 SQ.FT

Acknowledgement of
Plans Submittal ONLY!

Date 1/10/16

Tom Shuck Date 12/19/16

CARPENTRY:

SAWN LUMBER DESIGN IS BASED ON THE NATIONAL DESIGN SPECIFICATION, LATEST EDITION. SAWN LUMBER SHALL CONFORM TO WEST COAST LUMBER INSPECTION BUREAU OR WESTERN WOOD PRODUCTS ASSOCIATION GRADING RULES. ALL LUMBER NOT SPECIFICALLY NOTED TO BE D.F. #2 OR BETTER. ALL WOOD IN PERMANENT CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED UNLESS AN APPROVED BARRIER IS PROVIDED. FRAMING ACCESSORIES AND STRUCTURAL FASTENERS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY (OR ENGINEER APPROVED EQUAL) AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. HANGERS NOT SHOWN SHALL BE SIMPSON HU OF SIZE RECOMMENDED FOR MEMBER. ALL HANGERS AND NAILS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE SIMPSON Z-MAX HANGERS OR STAINLESS STEEL. ALL SHEAR WALL SHEATHING NAILS SHALL BE COMMON NAILS ALL FRAMING NAILS SHALL BE COMMON NAILS. OR HOT DIPPED GALVANIZED BOX NAILS. FRAMING NAILS SHALL BE PER IBC TABLE 2304.9.1 OR IRC TABLE R602.3(1).

PLYWOOD PANELS SHALL CONFORM TO THE REQUIREMENTS OF "U.S. PRODUCT STANDARD PS 1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" OR APA PRP-108 PERFORMANCE STANDARDS. UNLESS NOTED, PANELS SHALL BE APA RATED SHEATHING, EXPOSURE 1, OF THE THICKNESS AND SPAN RATING SHOWN ON THE DRAWINGS. PLYWOOD INSTALLATION SHALL BE IN CONFORMANCE WITH APA RECOMMENDATIONS. ALLOW 1/8" SPACING AT PANELS ENDS AND EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.

ALL ROOF SHEATHING AND SUB-FLOORING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS, EXCEPT AS INDICATED ON THE DRAWINGS. ROOF SHEATHING SHALL EITHER BE BLOCKED, TONGUE-AND-GROOVE, OR HAVE EDGES SUPPORTED BY PLYCLIPS. SHEAR WALL SHEATHING SHALL BE BLOCKED WITH 2X FRAMING AT ALL PANEL EDGES. NAILING NOT SPECIFICALLY IDENTIFIED ON THE DRAWINGS TO CONFORM WITH IRC TABLE R602.3(1).

GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH U.S. PRODUCT STANDARD PS 56, "STRUCTURAL GLUED LAMINATED TIMBER" AND AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, AITC 117. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD. GLULAM HANGERS NOT SHOWN SHALL BE SIMPSON EG. BEAMS SHALL BE VISUALLY GRADED WESTERN SPECIES INDUSTRIAL GRADE, AND OF THE STRENGTH INDICATED BELOW:

DEPTH	COMBINATION SYMBOL	SPECIES	USE
ALL	24F - V4	DF/DF	(SIMPLE SPAN)
ALL	24F - V8	DF/DF	(CONT. OR CANTILEVER)

PREMANUFACTURED WOOD JOISTS: PREMANUFACTURED WOOD JOISTS SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS, MANUFACTURED BY THE TRUS JOIST COMPANY, OR AN ENGINEER APPROVED EQUAL. PROVIDE BRIDGING IN CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS. JOISTS AND BRIDGING SHALL BE CAPABLE OF RESISTING THE WIND UPLIFT NOTED ON THE DRAWINGS. THE JOIST MANUFACTURER SHALL VISIT JOB SITE AS REQUIRED AND VERIFY THE PROPER INSTALLATION OF JOISTS IN WRITING TO THE ARCHITECT/ENGINEER. PREMANUFACTURED WOOD JOIST ALTERNATES WILL BE CONSIDERED, PROVIDED THE ALTERNATE IS COMPATIBLE WITH THE LOAD CAPACITY, STIFFNESS, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT, AND IS ICBO APPROVED.

LUMBER SPECIES:

A. POSTS, BEAMS, HEADERS, JOISTS, AND RAFTERS TO BE DF-#2

B. EXPOSED ARCH BEAMS TO BE DF-#1 OR BETTER

C. SILLS, PLATES BLOCKING, AND BRIDGING TO BE DF-#2.

D. ALL STUDS TO BE DF#2 OR BETTER.

E. PLYWOOD SHEATHING SHALL BE AS FOLLOWS:
ROOF SHEATHING SHALL BE 1/2" CDX INT-APA RATED 32/16.
WALL SHEATHING SHALL BE 1/2" INT-APA RATED 32/16 OR 7/16" OSB.
FLOOR SHEATHING SHALL BE 3/4" T & G INT-APA RATED OSB.

F. "I" JOISTS SHALL BE MANUFACTURED BY TRUS JOIST OR ENGINEER APPROVED EQUAL.

G. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.

By Aaron R. Marin

NO	DESCRIPTION	BY	DATE

SHEET TITLE: 2nd Floor Plan

PROJECT DESCRIPTION: MARIN RESIDENCE

DRAWINGS PROVIDED BY: MARIN DEVELOPMENT CO.

DATE: 12/13/16

SCALE: 1/8" = 1'-0"

SHEET: A-4

IREDELL COUNTY

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

APPLICATION NUMBER
222636
Issue Date: 10/20/2016

ZONING PERMIT

Open Space

Parcel Number	Street Address	Jurisdiction
4646415812.000	107 KNOX HAVEN LANE, MOORESVILLE, NC	IREDELL COUNTY

Owner Information	Applicant Information
Owner: ROBINSON ALLISON B	Applicant: PAUL PENNINGER
Address: 125 ELIZABETH BROOK DR MOORESVILLE, NC 28036	Address: 595 J M PENNINGER RD LEXINGTON, NC 27292
Phone:	Phone: 704-996-6330

Use Requested	Zone Code
SFD REPLACING PERMIT 142323	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
.580	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	83655	TOTAL FEES:	$ 77.25