BLDR-2022-7581

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-1924

PIN # 4774-08-4575

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

APPLICANT / OWNER: HELMSMAN HOMES LLC | APPLICANT ADDRESS: PO Box 3965, MOORESVILLE, NC 28117 | PHONE: (980) 500-1251 | ALT. PHONE: (980) 500-1251

SITE ADDRESS: 124 DOVE CREEK TRL, STATESVILLE, NC 28625 | SAP CONTROLLED: YES ☐ NO ☑

SITE DIRECTIONS: Hwy 64 to New Salem to Salem Springs | DESIGN FLOW: 360 | L.T.A.R.: .25

SUBDIVISION: Salem Springs | SECTION: - | LOT #: 34 | LOT AREA:

Septic Tank: (gal) 1000	STB:	Date:	☑ New System ☐ Repair ☐ Expansion	System Type: PII	☑ Residence	No. Bedrooms: 3	Water Supply: Other Public Water
Pump Tank: (gal) 1000	PT:	Date:	System Description: 25% Reduction		☐ Business	No. Persons: 6	
Pump Make:	Model:	Serial #:	Repair System Description: PPBPS - 50% Reduction		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 3	Linear Ft.: 360	Maintenance Agreement Required: ☐ YES ☑ NO		☑ Slab	☐ Crawl Space	
Trench Width: 36 in	Trench Bottom Depth (Low side): 34 inches		Gravel Depth: -	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to G.S. 130A-335(a2), (a3) & (a4) using the signed and sealed LSS/LG Evaluation attached here, from:

LE/Soil & Onsite Wastewater Consulting PLLC

LSS# 1090

AS BUILT SKETCH

Alarm
Floats
PM
Electrical
} SH 10/6/23

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: Date:

IMPROVEMENT PERMIT by: Benjamin A Bolton Date: 9/20/2022

AUTHORIZATION TO CONSTRUCT by: Benjamin A Bolton Date: 9/27/2022

Installed By: Specialty Hollard Date: 10/6/23

OPERATION PERMIT by: Sydney Date:

Existing System Inspected By:

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

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4774-08-4575

Issued To: Helmsman Homes

Property Location: 124 Dove Creek TR, lot 34

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Gene Young, 10005E

Facility Type: House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☑ No

Type of Wastewater System** 25% Reduction (Initial) PPBPS (Repair)

Design Daily Flow: 360 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☑ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 360 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1440 Trench/Bed Width: 36 inches LTAR: .25 gpd/ft²

Soil Cover: 22 inches Slope Adjusted Maximum Trench/Bed Depth: 34 inches

Aggregate Depth: ____ inches above pipe ____ inches below pipe 6 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 22.6 ft TDH vs 21.33 GPM Grease Trap Size (if applicable): ____ gallons

Distribution Method: ___ Serial ☐ D-Box or Parallel X Pressure Manifold(s) ☐ LPP ☐ Other: ____

___ Artificial Drainage Required: Yes ☐ No ☑ If yes, please specify details:

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

****If applicable:**
I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: ____
Owner/Legal Representative Signature: ____ Date: ____

Pre-Construction Conference Required: Yes ☑ No ☐

Conditions: See attached installer information sheet, Iredell County permission to change septic tank location and distribution type

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

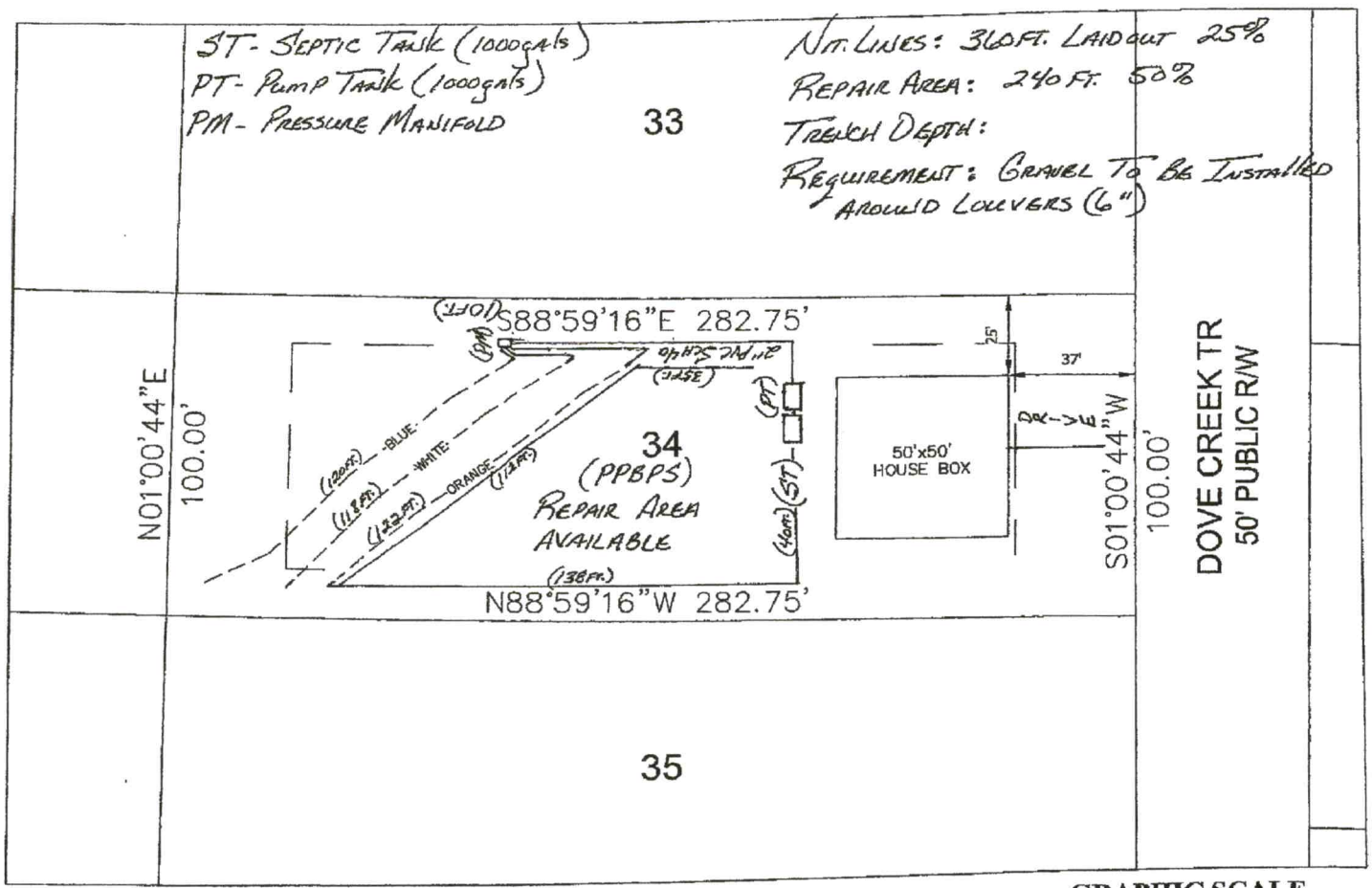
AOWE/PE Print Name: Gene Young AOWE, LSS

AOWE/PE Signature: AOWE, LSS Date: 8-11-22

NC ONSITE WASTEWATER EVALUATOR

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch



Salem Springs Subdivision Lot 34 Septic Site Plan

Base site plan from Salem Springs Subdivision Plans provided by Jordan Grant & Associates.

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

PRESSURE MANIFOLD TAPSHEET - SYSTEM

Line #	Color	Elev	Length	Hole Size	Flow/Tap	gpd	Trench Area	Line LTAR
1	*pink*		*120*	SCH 40 1/2	7.11	54.85	360	0.15
2	*red*		*118*	SCH 40 1/2	7.11	54.85	354	0.15
3	*blue*		*122*	SCH 40 1/2	7.11	54.85	366	0.15
						0.00	0	#DIV/0!
	total	feet =	360	gal/min =	21.33			
			Des. Flow	360				
			Pump Run=	7.71				
			LTAR	0.250				

Some lines flagged longer in the field, shorten to lengths shown here.

CALCULATIONS

Location

Lot No: 34

No. of Bedrooms 3

Design Flow 360 $^{gal}/_{day}$

LTAR 0.25 $^{gpd/ft^2}$

25% RED.? (YES OR NO) YES

Supply Line Length 90 ft.

Supply Line Volume 15.66 gal.

Amount of Line Required 360
Amount of Line from Layout 360 ft.

Gallons per Minute 21.33 $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Required Pump Tank Capacity 1000 gal.

Lateral Line Volume 235.08 gal.

Dosing Volume 164.56 gal.
Note: Dosing Volume based on 70% of lateral line volume

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	f
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

Tank Draw Down 7.8 *Generic Draw Down of 21 gal.per in.*

Pump Run Time 7.71 minutes

Elevation Head 14 ft.
Pressure Head 2 ft.
Friction Factor 3.48 ft./100 ft. *(From the interpolater.)*
Friction Head 3.13 ft.

Total Dynamic Head (+20%) 22.96 ft.

BldR - 2022 - 7581

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-1924

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

PIN # 4774-08-4575

APPLICANT / OWNER: HELMSMAN HOMES LLC | APPLICANT ADDRESS: PO Box 3965, MOORESVILLE, NC 28117

SITE ADDRESS: 124 DOVE CREEK TRL, STATESVILLE, NC 28625 | PHONE: (980) 500-1251 | ALT. PHONE: (980) 500-1251

SITE DIRECTIONS: Hwy 64 to New Salem to Salem Springs. | SAP CONTROLLED: YES ☐ NO ☒

SUBDIVISION: Salem Springs | SECTION: - | LOT #: 34 | LOT AREA: | DESIGN FLOW: 360 | L.T.A.R.: .25

Septic Tank: (gal) 1000	STB: 7600	Date: 7/28/23	☑ New System ☐ Repair ☐ Expansion	System Type: PII	☑ Residence	No. Bedrooms: 3	Water Supply: Other Public Water
Pump Tank: (gal) 1000	PT: 3603	Date: 7/31/23	System Description: 25% Reduction		☐ Business	No. Persons: 6	
Pump Make:	Model:	Serial #:	Repair System Description: PPBPS - 50% Reduction		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 3	Linear Ft.: 360	Maintenance Agreement Required: ☐ YES ☑ NO		☑ Slab	☐ Crawl Space	
Trench Width: 36 in	Trench Bottom Depth (Low side): 34 inch		Gravel Depth: -	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to G.S. 130A-335(a2), (a3) & (a4) using the signed and sealed LSS/LG Evaluation attached here, from:

LE1/Soil + Onsite Wastewater Consulting PLLC

LSS# 1090

AS BUILT SKETCH

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: _____ Installed By: Specialty Septic

IMPROVEMENT PERMIT by: Benjamin A Beck Date: 9/27/2022 OPERATION PERMIT by: _____ Date: _____

AUTHORIZATION TO CONSTRUCT by: Benjamin A Beck Date: 9/27/2022 Existing System Inspected By: _____ Date: _____

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

County: Iredell.

This Section for Local Health Department Use Only

Initial submittal received: 9/19/2022 (Date) by BB (Initials)

Permit Number: OSWP-2022-1924

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A Batts Date of Issuance: 9/27/2022

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 9/27/2027

See attached site sketch

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 8-11-22

Project Name: Helmsman Homes Salem Springs Lot 34

Session Law 2022-11 (S372), AUTHORIZATION FORM

LEY Soil & Onsite Wastewater Consulting has been contracted to evaluate soil, design, and submit an Onsite Wastewater system proposal to the Iredell County Environmental Health Department on behalf of Helmsman Homes, 116 Gasoline Alley, STE 105, Mooresville, NC 28117

The Licensed Soil Scientist (LSS) Evaluation attached to this application is to be used to produce, design, and include construction features for permitting in accordance with SL 2022-11, S372

"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6).

Tim Carr
Owner Signature

Gene Young--(336)-909-9060 geneleysoils@icloud.com
Gary Easter--(336)-909-9058 garyleysoils@icloud.com
Jeff Link--(336)-909-8624 jeffleysoils@icloud.com
NC Licensed Soil Scientist, AOWE, NC Environmental Health Specialist

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4774-08-4575

Issued To: Helmsman Homes

Property Location: 124 Dove Creek TR, lot 34

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Gene Young, 10005E

Facility Type: House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☑ No

Type of Wastewater System** 25% Reduction (Initial) PPBPS (Repair)

Design Daily Flow: 360 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☑ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 360 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1440 Trench/Bed Width: 36 inches LTAR: .25 gpd/ft²

Soil Cover: 22 inches Slope Adjusted Maximum Trench/Bed Depth: 34 inches

Aggregate Depth: ____ inches above pipe ____ inches below pipe 6 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 22.5ft TDH vs 21.33 GPM Grease Trap Size (if applicable): ____ gallons

Distribution Method: ___ Serial ☐ D-Box or Parallel X Pressure Manifold(s) ☐ LPP ☐ Other: ____

___ Artificial Drainage Required: Yes ☐ No ☑ If yes, please specify details:

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

****If applicable:**

I understand the system type specified is different from the type specified on the applicat ion. I accept the specifications of this permit.

Owner/Legal Representative Print Name: ____

Owner/Legal Representative Signature: ____ Date: ____

Pre-Construction Conference Required: Yes ☑ No ☐

Conditions: See attached installer information sheet, Iredell County permission to change septic tank location and distribution type

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Gene Young AOWE, LSS

AOWE/PE Signature: AOWE, LSS Date: 8-11-2

NC ONSITE WASTEWATER EVALUATOR 10005

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

County: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

Permit Number: _____

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date of Issuance: _____

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: _____

_____

See attached site sketch

PRESSURE MANIFOLD TAPSHEET -
SYSTEM

Line #	Color	Elev	Length	Hole Size	Flow/Tap	gpd	Trench Area	Line LTAR
1	*pink*		*120*	SCH 40 1/2	**7.11**	54.85	360	0.15
2	*red*		*118*	SCH 40 1/2	**7.11**	54.85	354	0.15
3	*blue*		*122*	SCH 40 1/2	**7.11**	54.85	366	0.15
						0.00	0	#DIV/0!
	total	**feet =**	**360**	**gal/min =**	**21.33**			
			Des. Flow	**360**				
			Pump Run=	**7.71**				
			LTAR	**0.250**				

Some lines flagged longer in the field, shorten to lengths shown here.

CALCULATIONS

Location

Lot No: 34

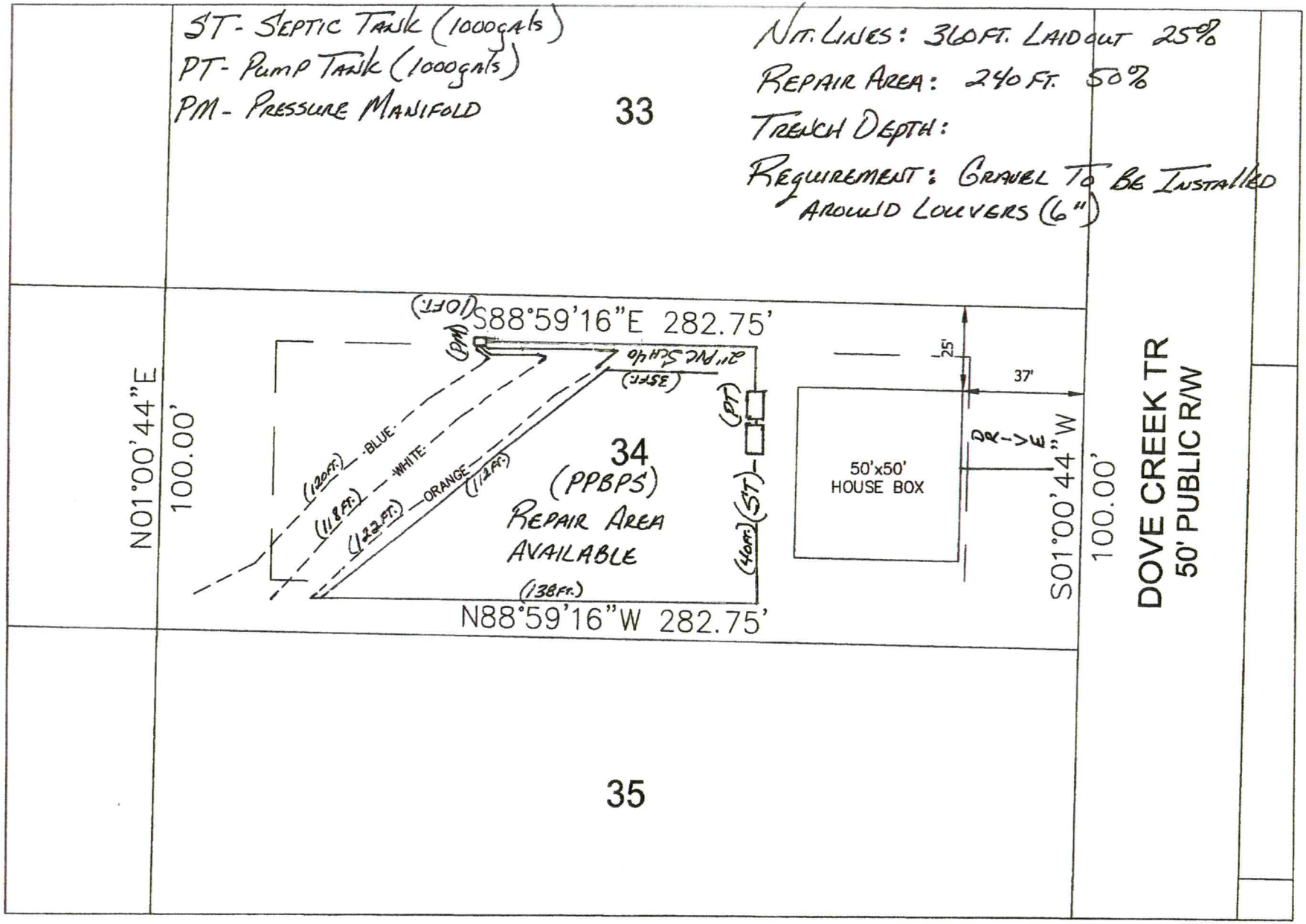
No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	90	ft.
Supply Line Volume	15.66	gal.
Amount of Line Required	360	
Amount of Line from Layout	360	ft.
Gallons per Minute	21.33	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Required Pump Tank Capacity	1000	gal.
Lateral Line Volume	235.08	gal.
Dosing Volume	164.56	gal.

Note: Dosing Volume based on 70% of lateral line volume

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

Tank Draw Down	7.8	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	7.71	minutes
Elevation Head	14	ft.
Pressure Head	2	ft.
Friction Factor	3.48	ft./100 ft. *(From the interpolater.)*
Friction Head	3.13	ft.
Total Dynamic Head (+20%)	22.96	ft.



Salem Springs Subdivision Lot 34 Septic Site Plan

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

Base site plan from Salem Springs Subdivision Plans provided by Jordan Grant & Associates.

Sheet ____ of ____
PROPERTY ID #: ____
COUNTY: IREDELL

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

OWNER: Helmsman Homes APPLICATION DATE ____
ADDRESS: Salem Springs Road DATE EVALUATED: ____
PROPOSED FACILITY: House PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: 20,000+
LOCATION OF SITE: Salem Springs Subdivision PROPERTY RECORDED: 202
WATER SUPPLY: . Private (Public) Well . Spring . Other ____
EVALUATION METHOD: . Auger Boring . (Pit) TYPE OF WASTEWATER: (Sewage) Industrial Process . Mixed

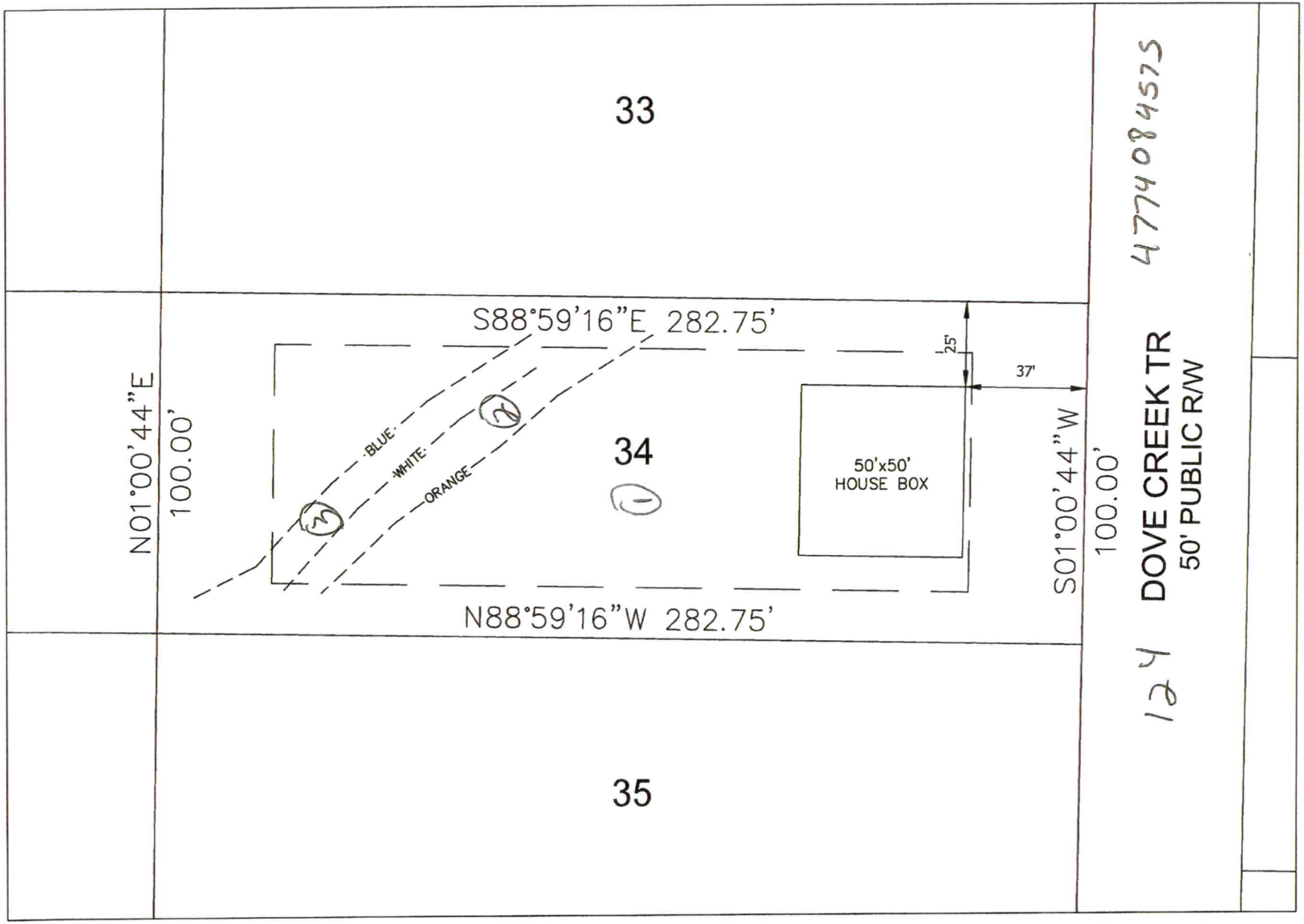
34

Landscape Position (1940)	L	L	L							
Slpoe%	4	5	5							
H 1 Depth (1943)	0-6	0-8	0-7							
H1 texture 1941	SCl	SCl	SCl							
H1 Structure 1941	GR	GR	GR							
H1 Consistance 1941	FR-SP	FR-SP	FR-SP							
H1 Mineralogy 1941	Se	Se	Se							
H 2 Depth (1943)	6-37	8-41	7-36							
H2 texture 1941	C	C	C							
H2 Structure 1941	SBK	SBK	SBK							
H2 Consistance 1941	Fi-P	Fi-P	Fi-P							
H2 Mineralogy 1941	Se	Se	Se							
H 3 Depth (1943)	37-52	41-60	36-55							
H3 texture 1941	BC	BC	BC							
H3 Structure 1941	WSBK	WSBK	WSBK							
H3 Consistance 1941	Fi-P	Fi-P	Fi-P							
H3 Mineralogy 1941	Se	Se	Se							
H 4 Depth (1943)										
H4 texture 1941										
H4 Structure 1941										
H4 Consistance 1941										
H4 Mineralogy 1941										
LTAR	.25	.25	.25							

Description	Initial System	Repair	Other Factors 1946
System Type	2590	5090	Site Classification
LTAR	.25	.25	

LICENSED SOIL SCIENTIST
STATE OF NORTH CAROLINA

Evaluated by Gene Yoes LSS



Salem Springs Subdivision Lot 34 Septic Site Plan

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

Base site plan from Salem Springs Subdivision Plans provided by Jordan Grant & Associates.

Installer Information

Be sure to read the permit very carefully before submitting bid.

The following details must be considered along with all other considerations:

Preconstruction Conference required with the installer, contractor, and AOWE before installation

- Concrete Septic Tank shall be used an approved by NC DHHS, (Shoaf or HPPP 1000-gallon STB 760 septic tank and Shoaf PT 363 concrete 1000-gallon I piece pump tank)

- All tanks shall be properly back filled and compacted to prevent slump in the future

- The installer is responsible for final grades and returning that grade to original, with the exception of added structural features

- **The supply trench shall be compacted to eliminate any cavities left during initial fill placement continuous fall of 1/8 inches per foot required or sewage effluent pump will be required**

- Installation of the system shall be completed during dry conditions in order to protect the soil structure

- All fittings shall be pressure rated fitting

- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints

- Trenches shall be carefully excavated so the bottom has no more than ¼" fall in 10 feet, with no high or low areas within. **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 rise.

- 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 ensure 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

See Design Specification Sheet for Onsite Wastewater System information

System is specified as an Accepted 25% Reduction Gravity Chamber installation with #4, #5, or #6 gravel to be installed 6 inches deep on each side of the chambers

All surface water must be diverted away from the onsite wastewater system area

- All Onsite Wastewater System components shall be 25' upslope, 15' side slope, and 10' downslope from any foundation drain

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 8-11-22

Project Name: Helmsman Homes Salem Springs Lot 34

Session Law 2022-11 (S372), AUTHORIZATION FORM

LEY Soil & Onsite Wastewater Consulting has been contracted to evaluate soil, design, and submit an Onsite Wastewater system proposal to the Iredell County Environmental Health Department on behalf of Helmsman Homes, 116 Gasoline Alley, STE 105, Mooresville, NC 28117

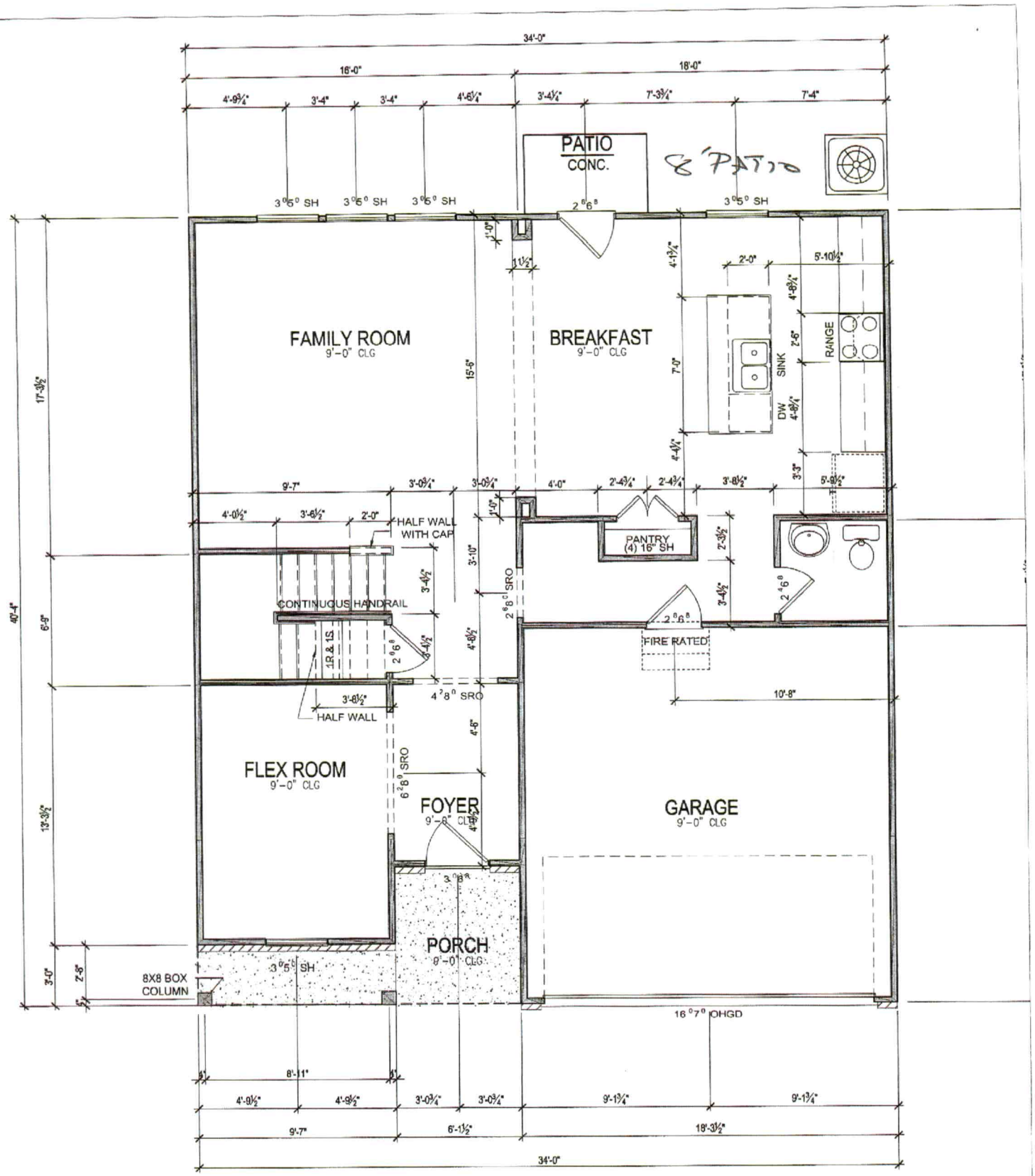
The Licensed Soil Scientist (LSS) Evaluation attached to this application is to be used to produce, design, and include construction features for permitting in accordance with SL 2022-11, S372

"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6).

_____ Owner Signature

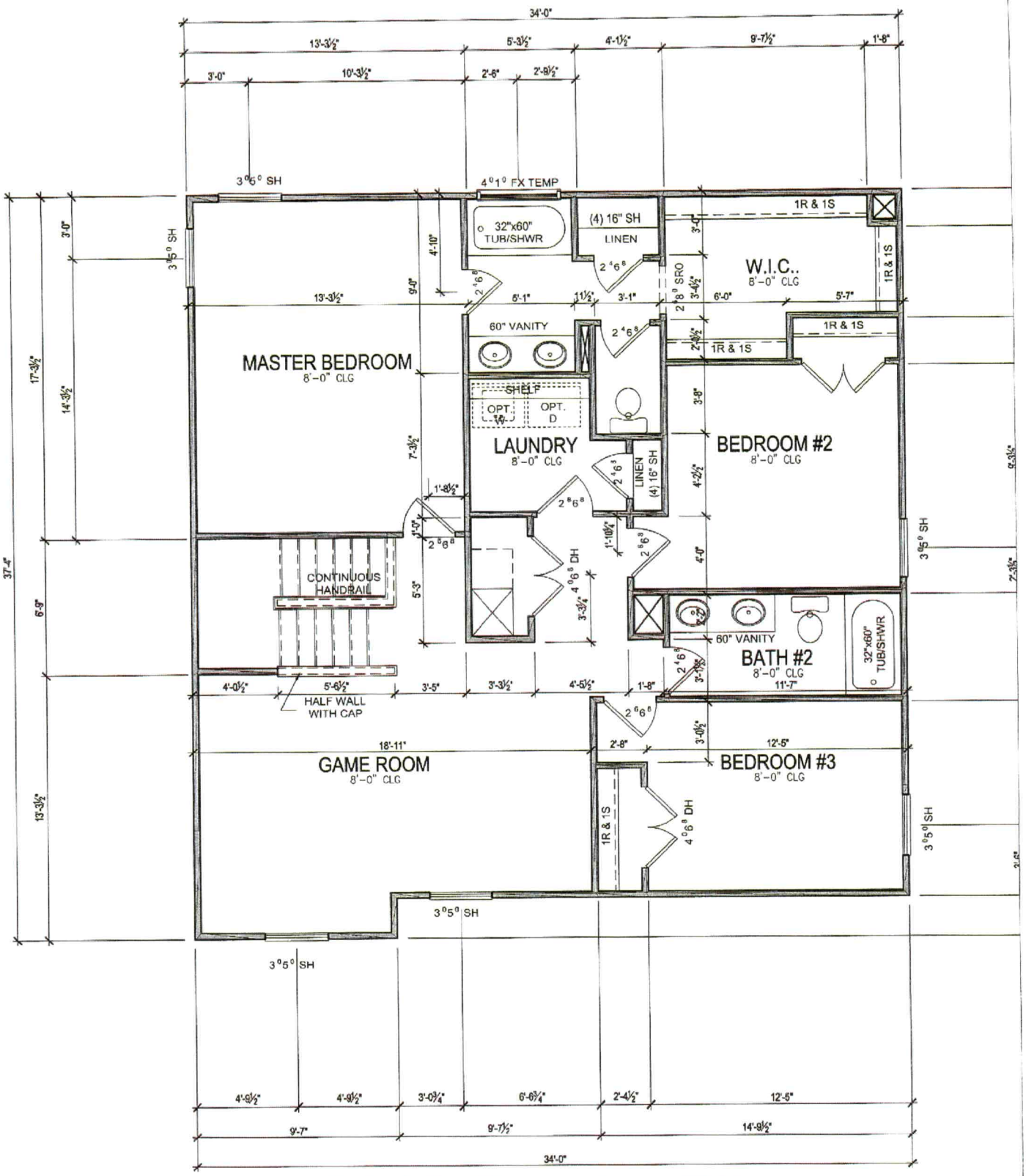
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NC Licensed Soil Scientist, AOWE, NC Environmental Health Specialist



2119 Fits the Bill

FIRST FLOOR PLAN

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



2119 Fits the Bill

SECOND FLOOR PLAN

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