BLDR-2023-27240

ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # OSWP-2023-13907

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

PIN # 4736-20-9925

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

SITE ADDRESS: 131 RED CEDAR LN, STATESVILLE, NC 28625 | PHONE: (980) 500-1251 | ALT. PHONE: (980) 500-1251

SITE DIRECTIONS: Hwy 115 N to Sullivan Farm to Sullivan Fields | SAP CONTROLLED: YES ☒ NO ☐

SUBDIVISION: Sullivan Fields | SECTION: | LOT #: 54 | LOT AREA: 0.542 | DESIGN FLOW: 360 | L.T.A.R.: .275

Septic Tank: (gal) 1000	STB: INFILTRATOR	Date: –	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 3	Water Supply: Other Public Water
Pump Tank: (gal) 1000	PT: INFILTRATOR	Date: –	System Description: PPBPS		☐ Business	No. Persons: 6	
Pump Make:	Model:	Serial #:	Repair System Description: PPBPS		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 4	Linear Ft.: 220	Maintenance Agreement Required: ☐ YES ☑ NO		☑ Slab	☐ Crawl Space	
Trench Width: 24in	Trench Bottom Depth (Low side): 33in.		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:

LEI Soil & Onsite Wastewater Consulting PLLC.

AS BUILT SKETCH

3-18-2025 BLW
- TANKS
- DRAINLINES
- SUPPLY LINE
- PRESSUREMANIFOLD

4-3-2025
✓ Pressure Head
✓ Floats
✓ Alarm
* electrical needs to be on 2 Separate breakers. - OK
4/9/2025 BB.

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: Brijuan A Bass | Date: 3-6-2023

AUTHORIZATION TO CONSTRUCT by: Brijuan A Bass | Date: 3-6-2023

Installed By: VAPA

OPERATION PERMIT by: Brijuan A Bass | Date: 4/9/2025

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: 2-27-2023 (Date) by BB (Initials)

Permit Number: OSWP-2023-13907

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. Burton Date of Issuance: 3/6/23

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: 3/6/2028

See attached site sketch

County: Iredell.

This Section for Local Health Department Use Only

Initial submittal received: 2-27-2023 (Date) by BB (Initials)

Permit Number: OSWP-2023-13907.

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization 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 AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A. Batten Date of Issuance: 3/6/2023

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) using the signed and sealed plans or evaluations attached here. This Construction Authorization 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 Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the 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. Final landscaping shall be constructed to divert water and establish vegetative cover.

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 plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: 3/6/2028

See attached site sketch

County: Iredell

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

PIN/Lot Identifier: 131 RED CEDAR LN LOT 54

Issued To: Helmsman Homes

Property Location: HWY 115 N right Sullivan farm road subdivision 1 mile on right

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

Facility Type: House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

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

Type of Wastewater System** PPBPS (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: 220 feet Trench/Bed Spacing: 8 feet on center

Drainfield square footage: 1310 Trench/Bed Width: 24 inches LTAR: .275 gpd/ft²

Soil Cover: 11 inches Slope Adjusted Maximum Trench/Bed Depth: 33 inches

Aggregate Depth: ____inches above pipe ____inches below pipe 6 inches total SAND

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

Pump Requirements: 22.11 ft. TDH vs. 21.82 GPM Grease Trap Size (if applicable): ____ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☒ 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 an 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

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: Gene Young AOWE, LSS Date: 11-14-22

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

See attached site sketch

County: Iredell

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 131 RED CEDAR LN LOT 54

Issued To: Helmsman Homes

Property Location: HWY 115 N right Sullivan farm road subdivision 1 mile on right

Subdivision: Sullivan Fields Lot #: 54 Block: _____ Section: _____

LSS Report Provided: Yes ☑ No ☐

If yes, name and license number of LSS: Gene Young AOWE,10005E, LSS, 1080

New ☑ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: House

Proposed Wastewater System Type: PPBPS (Initial) ~~PPBPS~~ (Repair)

Fill System: ☐ Yes ☑ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): .275 Proposed LTAR (Repair): .275

Design Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Number of bedrooms: 3 Number of Occupants: 6 Other: _____

Pump Required: ☒ Yes ☐ No ☐ May be required based upon final location and elevations of facilities

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

Type of Water Supply: ☐ Private well ☑ Public well ☐ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .1945: Yes ☑ No ☐

Drainfield location meets requirements of Rule .1950: Yes ☑ No ☐

Permit valid for: ☑ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

See attached installer information sheet, Iredell County has permission to change tanks locations and distribution type

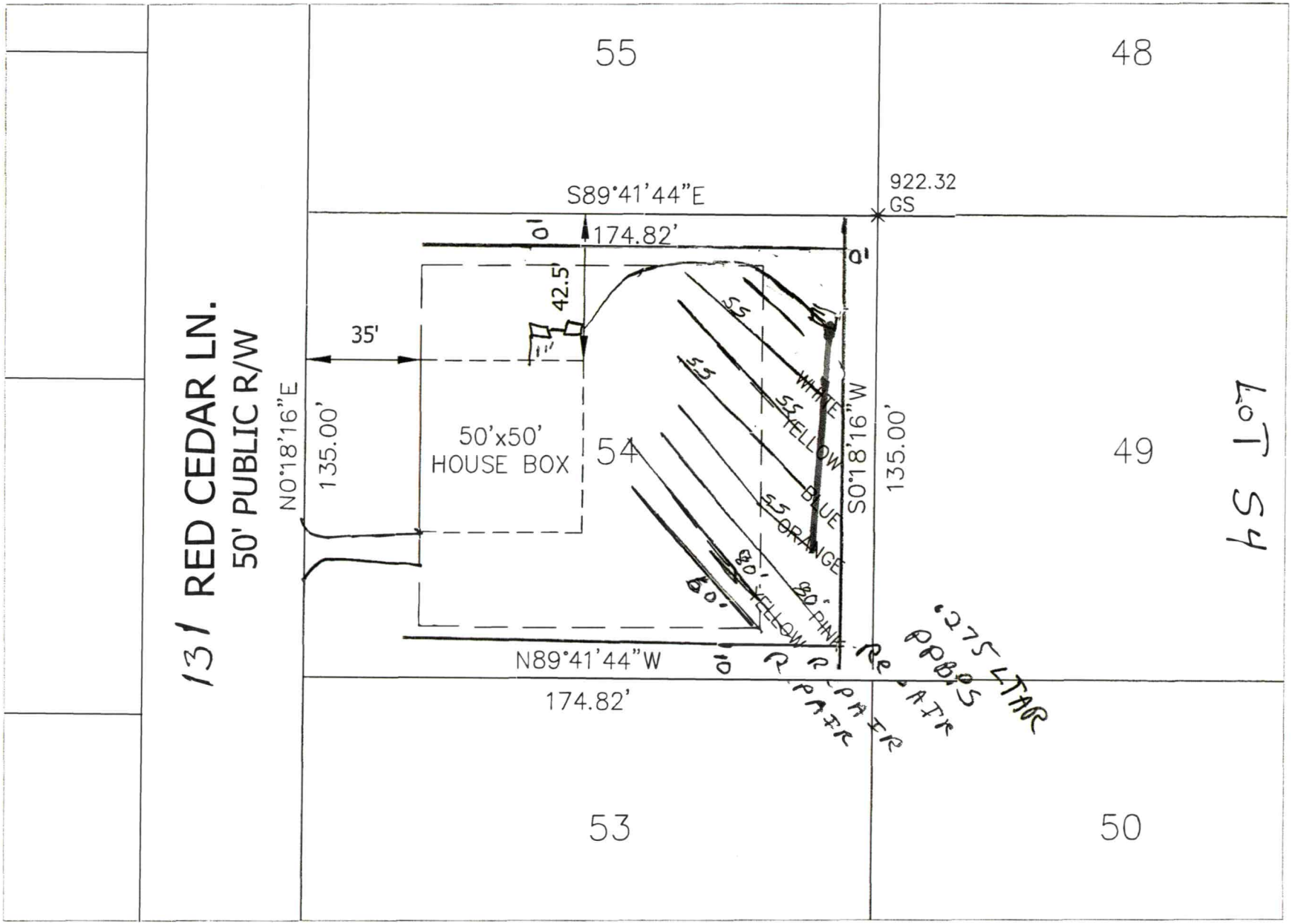
NC ONSITE WASTEWATER EVALUATOR

Licensed Soil Scientist Print Name: Gene Young, AOWE, LSS

Licensed Soil Scientist Signature: Gene Young AOWE, LSS 11-10-22

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

See attached site sketch



Sullivan Fields Subdivision Lot 54 Septic Site Plan

Base site plan from Sullivan Fields Subdivision Plans provided by Jordan Grant & Associates.

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 11-14-22

Project Name: Helmsman Homes, Sullivan Fields, Lot 54

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 to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3).

"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 younggene1956@gmail.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

Sheet 1 of 1
PROPERTY ID #:
COUNTY: IREDELL

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

OWNER: Helmsman Homes APPLICATION DATE 6-14-22
ADDRESS: 5911 JUAN FARM ROAD DATE EVALUATED:
PROPOSED FACILITY: House PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE:
LOCATION OF SITE: 54 PROPERTY RECORDED: 2-4-22
WATER SUPPLY: . Private . (Public) . Well . Spring . Other Public well
EVALUATION METHOD: . Auger Boring . (Pit) TYPE OF WASTEWATER: (Sewage) Industrial Process . Mixed

Landscape Position (1940)	L	S	S	L						
Slpoe%	5	5	5	5						
H 1 Depth (1943)	0-10	0-5	0-21	0-24						
H1 texture 1941	SCL AP	SCL AP	C AP	C AP						
H1 Structure 1941	WSBK	WSBK	MBK	ABK						
H1 Consistance 1941	FR-P	FR-P	FI-P	FI-P						
H1 Mineralogy 1941	S-e	S-e	S-e	S-e						
H 2 Depth (1943)	10-22	5-24	21-39	24-36						
H2 texture 1941	C	C	BC	BC						
H2 Structure 1941	ABK	ABK	WABK	WABK						
H2 Consistance 1941	FI-P	FI-P	FR-P	FR-P						
H2 Mineralogy 1941	S-e	S-e	S-e	S-e						
H 3 Depth (1943)	22-42	24-39	36-60	36-60						
H3 texture 1941	BC	BC	SAP-L	SAPL						
H3 Structure 1941	ABK-M	ABK-M	RC	RC						
H3 Consistance 1941	FR-P	FR-P	FRSP	FRSP						
H3 Mineralogy 1941	SE	S-e	S-e	S-e						
H 4 Depth (1943)	42-56	39-55								
H4 texture 1941	SAP	SAP SL								
H4 Structure 1941	SI/RC	RC								
H4 Consistance 1941	FRSP	FRSP								
H4 Mineralogy 1941	SE	SE								
LTAR	.275	.275	.275	.275						

Description	Initial System	Repair	Other Factors 1949
System Type	PPBPS	PPBPS	Site Classification
LTAR	.275	.275	

LICENSED SOIL SCIENTIST
GENE YOUNG
STATE OF NORTH CAROLINA
1080

Evaluated by Gene Young LSS

CALCULATIONS

Location	Sullivan Fields	
Lot No:	54	
Address:	131 Red Cedar Ln	
No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.275	$^{gpd/ft^2}$
PPBPS RED.? (YES OR NO)	YES	
Supply Line Length	80	ft.
Supply Line Volume	13.92	gal.
Required Feet of Line	218.1818	ft.
Amount of Line from Layout	220	ft.
Gallons per Minute	21.92	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	
Number of Panels	52	
Dosing Volume	187.20	gal.
	Note: Dosing Volume based on 100% of # of panels times 3.6gal/panel	
Tank Draw Down	8.9	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	8.54	minutes
Elevation Head	15	ft.
Pressure Head	2	ft.
Friction Factor	1.78	ft./100 ft. *(From the interpolater.)*
Friction Head	1.42	ft.
Total Dynamic Head (+20%)	22.11	ft.

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

Threaded Union:	In Tank
Gate Valves:	1 in Tank
	1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA

PRESSURE MANIFOLD TAPSHEET

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Line GPD	Line Capacity	# of Panels
1			*55*	*SCH 80 1/2*	*5.48*	*47*	*47*	*13*
2			*55*	*SCH 80 1/2*	*5.48*	*47*	*47*	*13*
3			*55*	*SCH 80 1/2*	*5.48*	*47*	*47*	*13*
4			*55*	*SCH 80 1/2*	*5.48*	*47*	*47*	*13*
						0		
	total	feet =	220	gal/min =	21.92			
			Des. Flow	360				
			Pump Run=	8.54				
			soil LTAR	0.275				

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, Iredell County Environmental Health and AOWE before installation can began

- Concrete Septic Tank shall be approved by NC DHHS, (Shoaf or HPPP 1000-gallon STB 760 septic tank recommended)

- 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

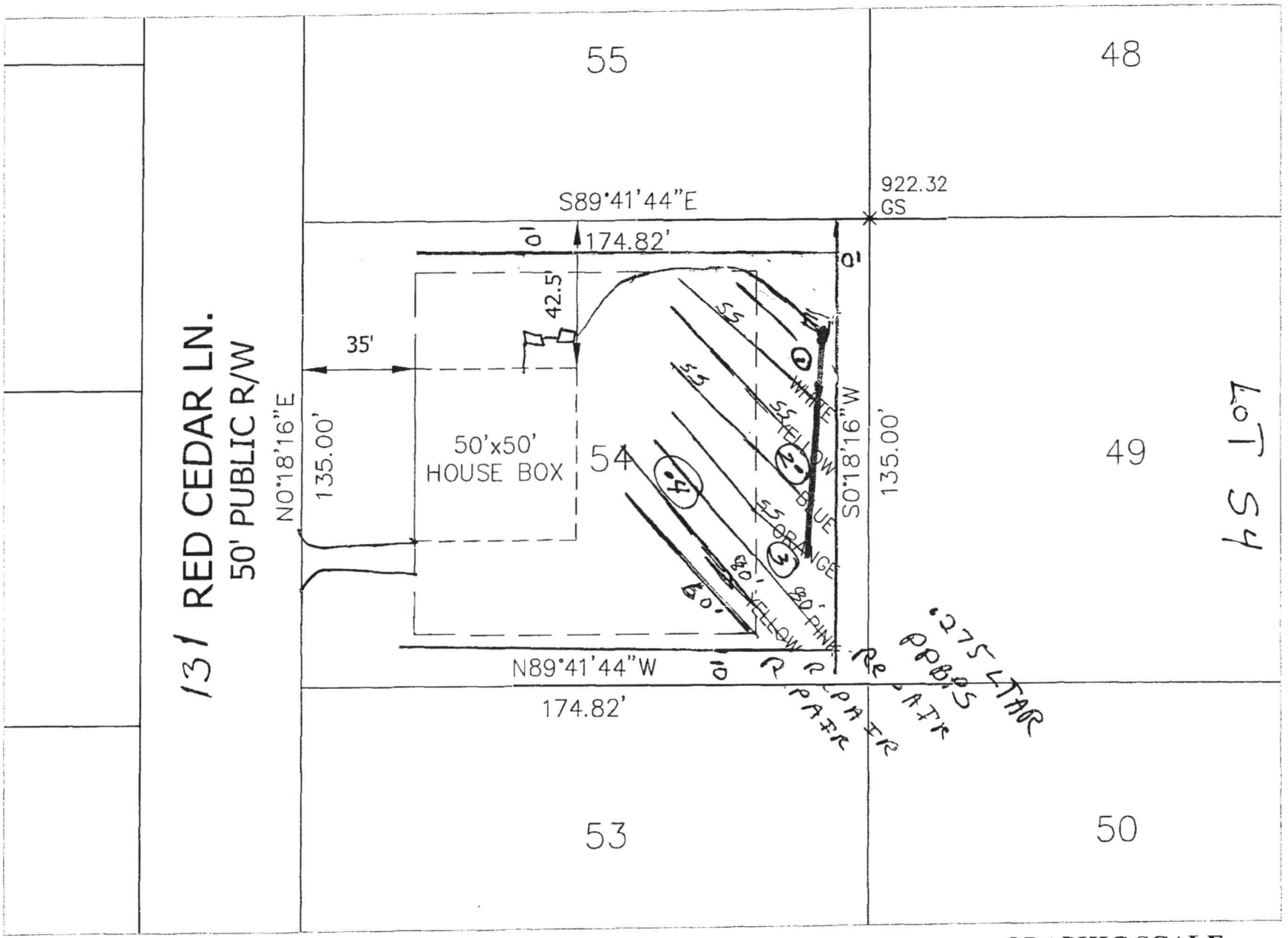
- All Onsite Wastewater System components shall be 25' upslope, 15' side slope, and 10' downslope from any foundation drain

- **Seed and landscape the onsite wastewater system area**

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

System must be installed in accordance with the T & J PANEL DESIGN, INSTALLATION manual

- **If grading for slab foundation is utilized, do not grade/create greater than 2 feet of elevation difference within 15 feet of any component of the septic or repair. If back filling, do not backfill over any initial or repair septic line**



Sullivan Fields Subdivision Lot 54 Septic Site Plan

Base site plan from Sullivan Fields Subdivision Plans provided by Jordan Grant & Associates.

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet