BLDR - 2023 - 23145

ICHD - ENVIRONMENTAL HEALTH DIVISION

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

PERMIT # OSWP-2023-18721

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

PIN # 4774-07-5992

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

SITE ADDRESS: 140 DOVE CREEK TRL, STATESVILLE, NC 28625 | PHONE: 7042391492 | ALT. PHONE: 7043636038

SITE DIRECTIONS: | SAP CONTROLLED: YES ☐ NO ☑

SUBDIVISION: Salem Springs | SECTION: - | LOT #: 48 | LOT AREA: 2.493 | DESIGN FLOW: 360 | L.T.A.R.: .25

Septic Tank: (gal) 1000	STB: Infiltrator	Date: Infiltrator	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 3	Water Supply: Other Public Water
Pump Tank: (gal) 1000	PT:	Date:	System Description: PM-25% Reduction.		☐ Business	No. Persons: 6	
Pump Make:	Model:	Serial #:	Repair System Description: H PPBPS-2-P-50% Red.		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 4	Linear Ft.: 360	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
Trench Width: 36 in	Trench Bottom Depth (Low side): 30 in		Gravel Depth: -	☑ GRAVITY ☐ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Soil & Forestry Services

LSS # 1231

AS BUILT SKETCH

1/16/2024 - Tanks - Lines & PM.

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: Brianna A Bell Date: 4-12-2023

AUTHORIZATION TO CONSTRUCT by: Brianna Bell Date: 4-12-2023.

Installed By: Varla Enterprise

OPERATION PERMIT by: Date: 1/30/24

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: 3-30-2023 (Date) by BB (Initials)

Permit Number: OSWP-2023-18721

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: 4-12-2023

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: 4-12-2028

See attached site sketch

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 3-30-2023 (Date) by BB. (Initials)

Permit Number: OSWP-2023-18721

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. Batts Date of Issuance: 4-12-2023

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: 4-12-2028

See attached site sketch

County: Iredell

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

PIN/Lot Identifier: 4774075492

Issued To: Salem Springs Dev LLC

Property Location: 140 Dove Creek Trail Statesville NC 28625

Subdivision: Salem Springs Lot #: 48 Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Samuel Ashley Rollins # 1231

New ☒ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: Single Family Residence

Proposed Wastewater System Type: Accept 25% rcdvc PM (Initial) HPPBPS (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): 0.25 Proposed LTAR (Repair): 0.25

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 design

Licensed Soil Scientist Print Name: Samuel Ashley Rollins

Licensed Soil Scientist Signature: Samuel A Rollins Date: 3/1/23

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

See attached site sketch

County: Iredell

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

PIN/Lot Identifier: 4774075992

Issued To: Salem Springs Dev. LLC

Property Location: 140 Dove Creek Trail, Statesville NC 28625

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Samuel Ashley Rollans - 10027E

Facility Type: 3 BR

☑ New ☐ Expansion ☐ Repair System Relocation ☐

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

Type of Wastewater System** Accepted 25% Red - Pressure Manifold (Initial) HPBDS - Low Pressure (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: 1,000 gallons Total Trench/Bed Length: 360 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1,080 Trench/Bed Width: 36 inches LTAR: 0.25 gpd/ft²

Soil Cover: 6 min inches Slope Adjusted Maximum Trench/Bed Depth: 30 inches (LOW SIDE)

Aggregate Depth: _____inches above pipe _____inches below pipe _____inches total

Pump Tank Size (if applicable): 1,000 gallons Requires more than 1 pump? ☐ Yes ☐ No

Pump Requirements: 12.71 ft. TDH vs. 28.44 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 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 design

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: Samuel Ashley Rollans

AOWE/PE Signature: Samuel A Rollans Date: 3/1/23

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

See attached site sketch

ON-SITE WASTEWATER Certification Number 10027E EVALUATOR

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Project#: 21-0029
March 1st, 2023

SALEM SPRINGS DEVELOPMENT, LLC
Attn: *Paul Penninger*
Email: ppenninger@nesthomes.com

RE: Soil& Site Evaluation for a 3 Bedroom Residence on Lot 48 Salem Springs Subdivision, 2.493ac Parcel, PIN# 4774075992, 140 Dove Creek Trail, Statesville, NC 28625.

Mr. Penninger:

At your request Soil & Forestry Services of the Carolinas (S&FS) has performed soil/site evaluations on parcel noted above. The Lot size is noted on the attached survey map & soil evaluation form. The purpose of our work was to identify soil areas with potential to support subsurface wastewater disposal systems and provide design details for Session Law submittal to Iredell County Health Department.

Site Conditions

At the time of our evaluation land cover on the property was mostly open field. Topography within the evaluated area was gentle slope near the house site and proposed drainfield area. Property lines and corners were marked at the time of the evaluation by Jordan Grant & Associates Land Surveying. The client provided an Autocad File of a survey as a basemap. The proposed septic layout was located via Trimble Submeter GPS/tape measures and used to produce the attached *Site Plan*. The house envelope was located via Autocad.

Methodology

We evaluated soil areas through the use of backhoe pits. Soil morphological conditions including color, texture, structure, etc. were reviewed in the field with four pit locations on the property flagged and located via GPS. Four of the four backhoe pits are located in or adjacent to the proposed septic layout. Soil suitability was determined by referencing 15A NCAC 18A.1900 "Laws and Rules for Sewage Treatment and Disposal Systems". *Soil & Site Evaluation Forms* were utilized to record the soil morphological data for each pit. The house envelope was located via Autocad. An on-ground layout of system and repair was performed using a laser level. Pin flag locations of the layout were also located by GPS and tape measures. Detailed system & repair information is summarized in the following paragraph for this Lot.

Salem Springs Lot 48 (*See Attached Design*)
The septic layout for this lot (9' centers) yielded a total of 722 linear feet of line. The primary system is proposed as 360 linear feet of Accepted (25% Reduction) drainfield with pressure manifold distribution. Trench depth (Low Side) is specified at 30 inches. The repair system is proposed as 240 linear feet of Mod. Conv. (HPPBPS) drainfield with low pressure distribution. There is 362 linear feet available for repair. Trench depth (Low Side) is specified at 41 inches.

Session Law Requirements

All information needed to issue the IP must be submitted with the application. The application shall include all information described in 15A NCAC 18A .1937(d) and be accompanied by a signed and dated statement from the applicant (owner or owner's legal representative) that reads as follows:

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

Owner Date

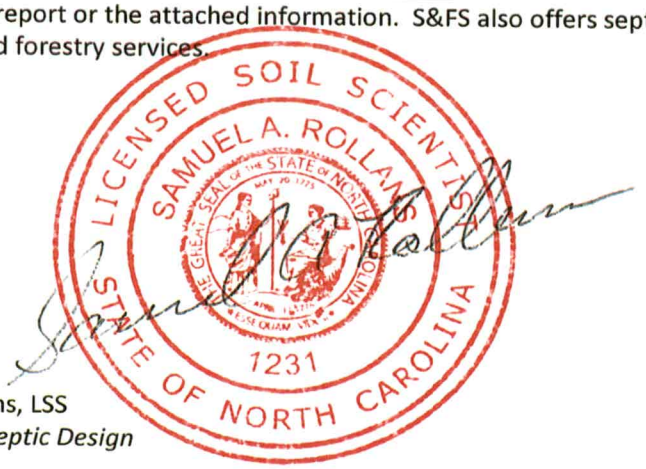
Print Name Tim Carr
Signature Tim Carr 3-9-23

The LSS evaluation shall include a statement bearing the LSS seal and signature that reads as follows:

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

Disclaimer
This report reflects the findings of S&FS, PA. *This LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."* Any site modifications that impact the proposed septic areas on the site may nullify this design for Lot 48 Salem Springs Subdivision. System design requirements and site requirements shall be adhered to for installation and Operations Permits to be issued by the local Health Department. If you have questions regarding these requirements a Pre-Construction meeting should be scheduled to discuss. Please contact S&FS if you have any questions regarding this report or the attached information. S&FS also offers septic system inspection, wetland delineation and forestry services.

Sincerely,



S. Ashley Rollans, LSS
Attachment: *Septic Design*

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for an Accepted (25% reduction) Septic System with Pressure Manifold distribution for a 3 bedroom single family residence at 140 Dove Creek Trail., Statesville 28625, Iredell County, NC. PIN (4774075992).

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Calculations	8
Profile Descriptions	9
Zoning Permit & Receipt	ONLINE
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LICENSED SOIL SCIENTIST
SAMUEL A. ROLLAND
1231
STATE OF NORTH CAROLINA

March 1, 2023
Project No. 21-0029
Design By: Soil & Forestry Services of the Carolinas, PA

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DHHS, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- 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 pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as an Accepted 25% reduction installation w/Pressure Manifold.
- Repair is specified as a HPPBPS installation with Low Pressure Distribution.
- Rake trench walls, lime sidewalls, install trenches 36" wide and have no more than 1/4" fall in 10 feet.

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	Salem Springs Development, LLC
Address:	P.O. Box 3965 Mooresville, NC 28117
Phone:	704.202.1524
County:	Iredell
Location:	140 Dove Creek Trail Statesville, NC 28625
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	360 gpd
System Flow:	28.44

Design Specifications

Drainfield Size:	360
Loading Rate:	0.25
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
(Low Side)Trench Depth:	30 in. Repair Trench Depth 41 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	59
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	10.27
Dosing Volume:	164.56
Supply Manifold:	4 in. SCH 80 PVC
Supply Manifold Length:	4 ft. (minimum)
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	1.05
Elevation Head:	8.00
Total Dynamic Head:	12.71
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Soil & Forestry Services of the Carolinas, PA.

140 Dove Creek Trail
PRESSURE MANIFOLD DESIGN

DESIGN FLOW:	360	
SOIL APPLICATION RATE:	0.25	
TOTAL AREA TRENCH BOTTOM:	1080	
TOTAL LATERAL LENGTH:	360	
NUMBER OF FIELDS:	1	
LATERAL LENGTH REQUIRED PER FIELD:	360	
SUPPLY LINE LENGTH:	59	
TOTAL DYNAMIC HEAD:	12.71	
MANIFOLD SIZE:	4 in.SCH 80 PVC	
DOSING VOLUME:	164.56	
PUMP TANK DRAW DOWN*:	7.8	
SEPTIC TANK SIZE:		1000
PUMP TANK SIZE:		1000

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

Layout Specifications - 140 Dove Creek Trail Lot 48

Project #: 21-0029

LAYOUT FOR 3 BEDROOM HOME

March 1, 2023

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
HOUSE							
PUMP TANK					838.50		
INSTR. 1							
1	RED				842.60	75	75
2	ORANGE				842.10	84	84
3	YELLOW				841.60	84	84
4	***BLUE***				***841.30***	***110***	***90***
5	***PINK***				***840.70***	***99***	***90***
6	***RED***				***840.20***	***94***	***90***
7	***ORANGE***				***839.50***	***90***	***90***
8	YELLOW				839.00	86	86
					Total	722	689

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION	Low Side Trench DEPTH
****System***	***360***	***0.250***	***ACCEPT.***	***0.250***	***25% RED***	***PRESSURE MANIFOLD***	30"
Repair	362	0.250	MOD. CONV.	0.250	HPPBPS	LOW PRESSURE	41"

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**Nitrification lines were located by GPS.

PRESSURE MANIFOLD TAPSHEET - 140 Dove Creek Trail Lot 48

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area	Line LTAR
4	***BLUE***	***841.30***	90	SCH 40 1/2	**7.11**	270	0.15
5	***PINK***	***840.70***	90	SCH 40 1/2	**7.11**	270	0.15
6	***RED***	***840.20***	90	SCH 40 1/2	**7.11**	270	0.15
7	***ORANGE***	***839.50***	90	SCH 40 1/2	**7.11**	270	0.15

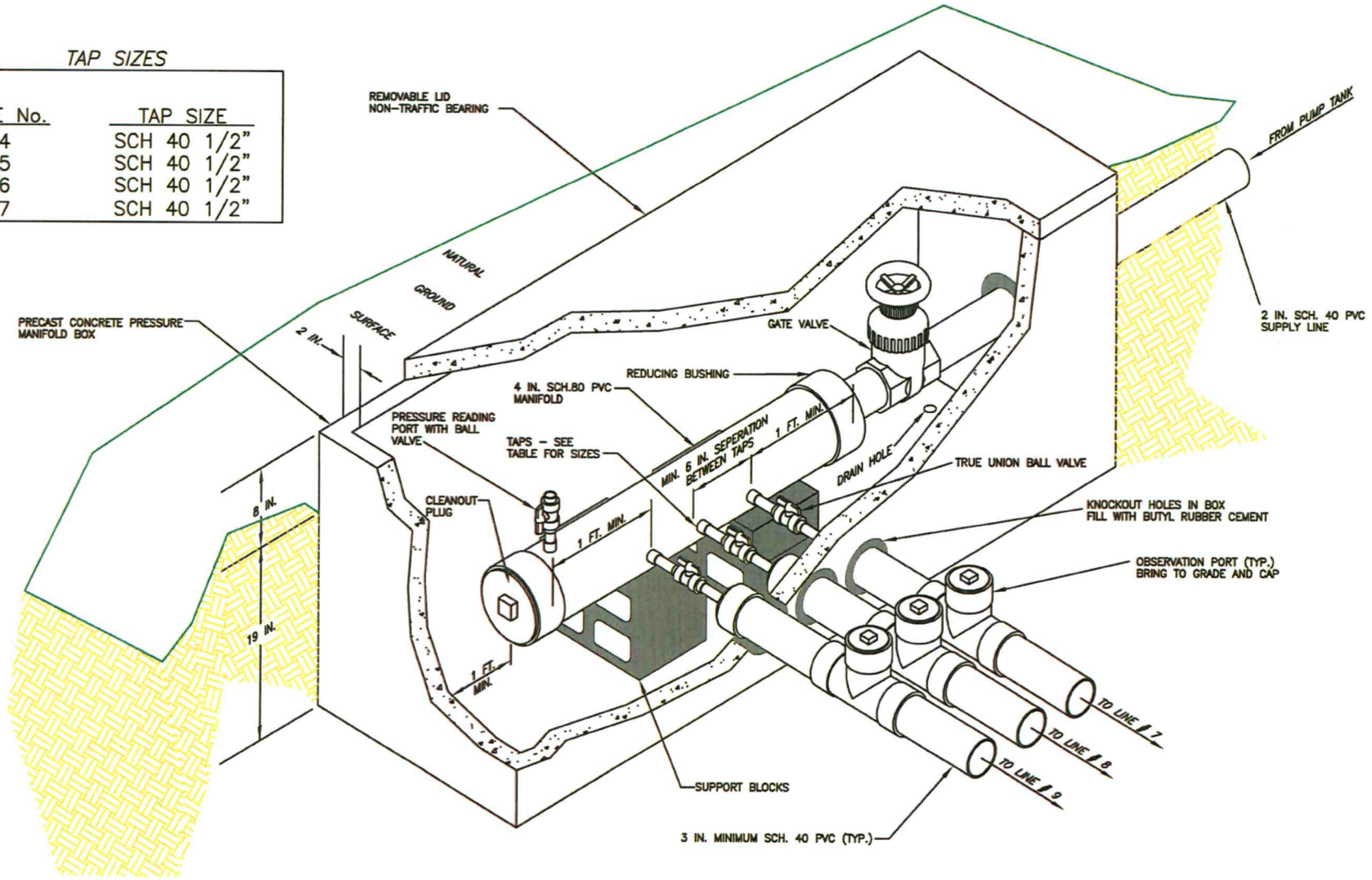
total	**feet =**	**360**	**gal/min =**	**28.44**
		Des. Flow	**360**	
		Pump Run=	**5.79**	
		soil LTAR	**0.25**	
		LTAR +5%	**0.2625**	
		LTAR with ACCEPTED	**0.333333333**	
		LTAR with ACCEPTED + 5%	**0.35**	

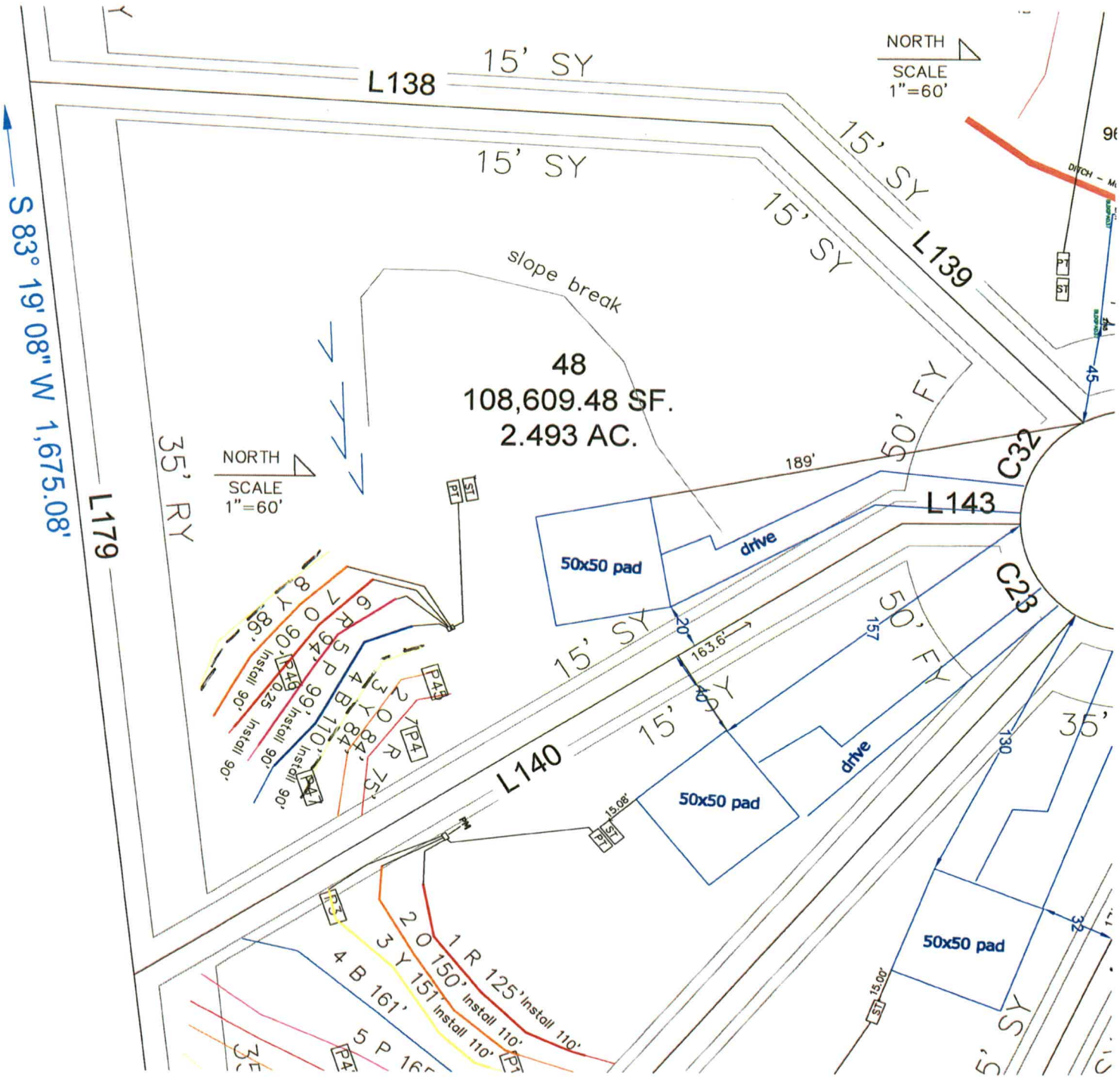
PRESSURE MANIFOLD DETAILS

140 Dove Creek Trail
Salem Springs, LOT #48, Iredell COUNTY

TAP SIZES

LINE No.	TAP SIZE
4	SCH 40 1/2"
5	SCH 40 1/2"
6	SCH 40 1/2"
7	SCH 40 1/2"




NORTH
SCALE
1"=60'
L138
15' SY
15' SY
15' SY
15' SY
L139
slope break
48
108,609.48 SF.
2.493 AC.
S 83° 19' 08" W 1,675.08'
L179
35' RY
NORTH
SCALE
1"=60'
50' FY
C32
189'
L143
50x50 pad
drive
C23
50' FY
157
15' SY
20
163.6'
40' SY
15' SY
L140
50x50 pad
drive
30
35'
50x50 pad
32
15.00'
15.08'
8 Y 86'
7 O 90' Install 90'
6 R 94'
5 P 99' Install 90'
0.25
4 B 110' Install 90'
3 Y 84'
2 O 75'
1 R 125' Install 110'
2 O 150' Install 110'
3 Y 151' Install 110'
4 B 161'
5 P 16
P43
P44
P45
P46
P47
P48
P49
P1
P2
P3
P4
ST
PT
45
DITCH

CALCULATIONS

Location	140 Dove Creek Trail Statesville, NC 28625	
Project Number	21-0029	
Lot No:	48	
No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.250	$^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	59	ft.
Supply Line Volume	10.266	gal.
Required Feet of Line	360	ft.
Amount of Line from Layout	360	ft.
Gallons per Minute	28.44	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Lateral Line Volume	235.08	gal.
Dosing Volume	164.56	gal.
	Note: Dosing Volume based on 70% of lateral line volume	
Tank Draw Down	7.8	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.79	minutes
Elevation Head	8	ft.
Pressure Head	2	ft.
Friction Factor	1.78	ft./100 ft. *(From the interpolater.)*
Friction Head	1.05	ft.
Total Dynamic Head (+15%)	12.71	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

Sheet 1 of 1
PROPERTY ID #: 4774075992
COUNTY: Iredell

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

OWNER: Salem Springs Develpomet LLC
ADDRESS: P.O Box 3965 Mooresville NC 28117
PROPOSED FACILITY: 3BR - 140 Dove Creek Trail, Statesville NC 28625
LOCATION OF SITE: 140 Dove Creek Trail New Salem Lot 48 Statesville NC 28625

APPLICATION DATE:
DATE EVALUATED: 8/11/2022
PROPERTY SIZE: 2.493 AC
PROPERTY RECORDED: Yes

WATER SUPPLY: ☐ Private ☐ 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	.1943 SOIL DEPTH	.1956 SAPR CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
4	L/4%	0-9	BSLWFSBK	FRSSSPSEXP	few Magn few Fe depl c Fe depl chr2@36"	53			PS 0.225 TO 36"
		9-19	RBSCLWFSBK	FRSSSP					
		19-33	RBSCWFSBK/ABK	FRSSSP					
		33-53	BRCWMSBK/ABK	FRSP					
45	L/5%	0-6	BSCLGR	FRSSSPSEXP	c fe depl@15" poss chr2@18-25" c wh rock few Fe depl	56			PS 0.25 DEEP ONLY
		6-29	BRCWFABK	FRSP					
		29-56	BRCWMSBK	FSSP					
46	L/5%	0-9	BSLGR	FRSSSPSEXP	few Fe depl few sap	49			PS 0.25
		9-30	BRCWMABK	FRSP					
		30-49	RBC/CLWFSBK	FRSSSP					
47	L/4%	0-5	BSLGR	FRSSSPSEXP	few to c sap	59			PS 0.275-0.3
		5-37	BRCWMSBK/ABK	FRSSSP					
		37-59	RBCLWFSBK	FRSSSP					

LICENSED SOIL SCIENTIST
SAMUEL A. ROLLANS
THE GREAT SEAL OF THE STATE OF NORTH CAROLINA
1231
STATE OF NORTH CAROLINA

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Types(s)	Accepted 75% Presure Manifold	HP/BPS/Low Pressure
Site LTAR	0.25	0.25

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Ashley Rollans
OTHER(S) PRESENT: Chad Wagner & Mason Freeman

COMMENTS: