BLDR-2023-22516

OSWP-2023-20735 (IPAC-NOI)

Received 2-9-2024.

Residential Subsurface Wastewater Treatment and Disposal System AOWE ATO

for

Lot 20 – Twin Creek Estates
106 Rushing Water Lane
Troutman, NC 28166

Tax Parcel # 4730363694.000
February 8, 2024

Prepared for:

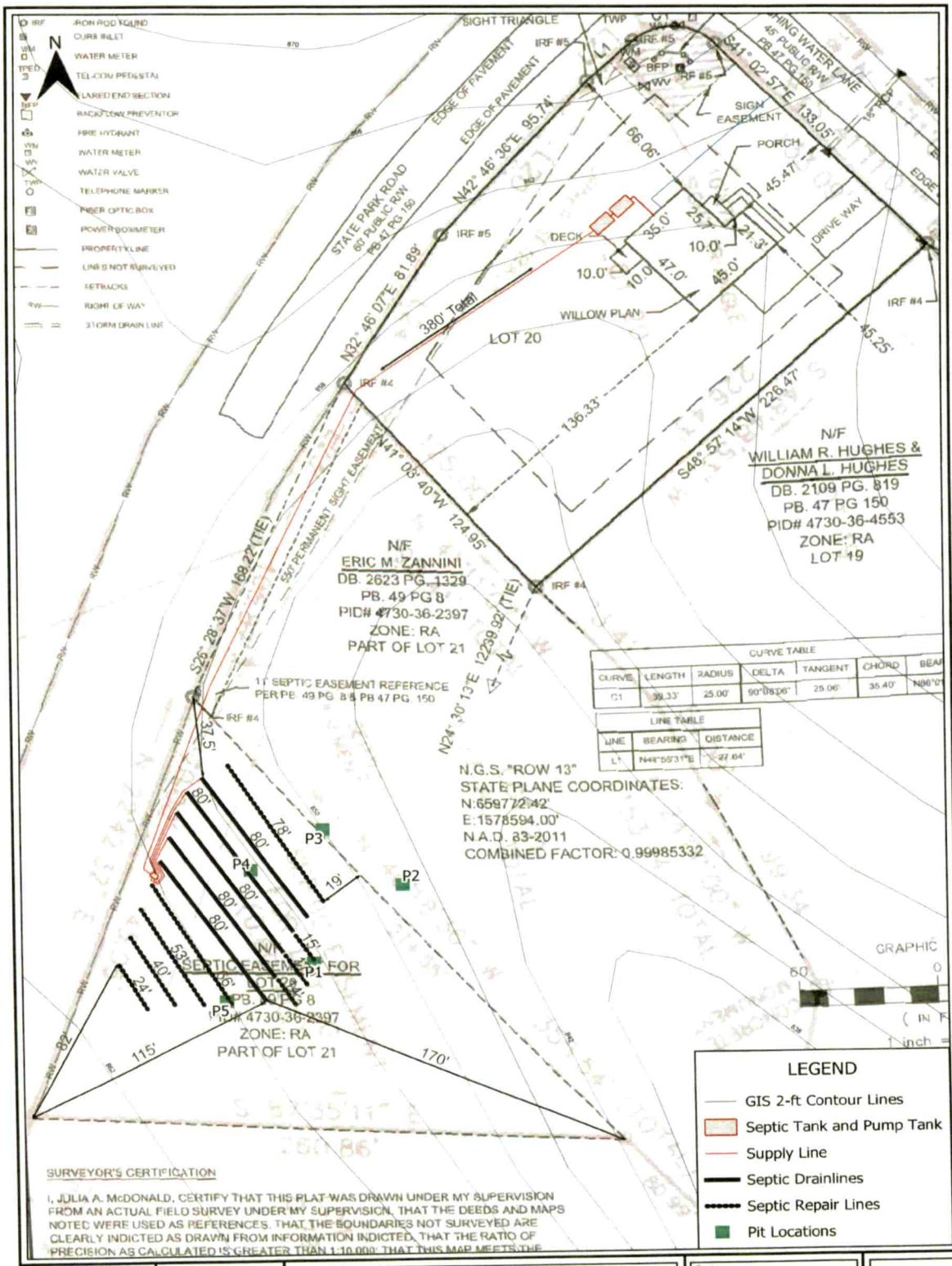
Four Corners of Charlotte, LLC
1612 Seattle Slew Court
Waxhaw NC 28173
704-713-2602

NORTH CAROLINA REGISTERED ENVIRONMENTAL HEALTH SPECIALIST SEAL 1200 LARRY B. THOMPSON JR.

Prepared by:

Larry Thompson, REHS, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
larry@thompsonenv.com

NC ONSITE WASTEWATER Certification Number 10016E EVALUATOR



SURVEYOR'S CERTIFICATION

I, JULIA A. McDONALD, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL FIELD SURVEY UNDER MY SUPERVISION, THAT THE DEEDS AND MAPS NOTED WERE USED AS REFERENCES, THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICTED AS DRAWN FROM INFORMATION INDICTED, THAT THE RATIO OF PRECISION AS CALCULATED IS GREATER THAN 1:10,000; THAT THIS MAP MEETS THE

Thompson Environmental Consulting

Prepared For:
Four Corners of Charlotte LLC

Proposed Septic Layout

Lot 20 - Twin Creek Estates
106 Rushing Water Lane
Troutman, NC 28166

Iredell County

Date: March 2023

Scale: 0 25 50 ft

TEC Job #: 22-377

Figure 1

Details

Four Corners of Charlotte LLC previously contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare an AOWE permit package for a new 4-bedroom single-family residence to be constructed on Lot 20 – Twin Creek Estates, located at 106 Rushing Water Lane, Troutman, North Carolina (Iredell County Parcel Number: 4730363694.000).

Based upon a soil investigation performed by TEC, it was determined that a sufficient amount of "Provisionally Suitable" Group IV soils are available in an offsite easement area for the installation of a **Pump to Accepted System** with a Prefabricated Permeable Block Panel System repair area for a 4-bedroom single-family residence at a 0.3 GPD/sq/ft long-term acceptance rate (LTAR). The property will be served by a municipal water supply.

Per Angela Berland, attorney/partner – Paladin Law, the offsite easement area is dedicated on the plat, as such, it runs with the land. A change in ownership does not affect the validity of the easement. There is no expiration date to a plat and the plat clearly indicates the area dedicated for the septic drainfield and defines the additional ingress/egress for the 11-foot easement from Lot 20 onto Lot 21.

The system has been installed by Dewey Gran (Level II Installer 2607) and inspected by TEC. The system has been installed in general accordance with the AOWE permit package submitted to your office. The recommended maintenance plan and as-built drawing are included in this package. This report shall allow the Authorization to Operate to be issued for the certificate of occupancy for the above referenced facility.

OPERATION and MAINTENANCE

A. Operation and Maintenance

1. The septic tank and pump tank shall be pumped out when the solids within the septic tank reach an elevation that is equivalent to 25% of the volume of the tank. The grease trap will need to be.
2. The effluent filter should be inspected annually. When it becomes necessary to clean the effluent filter, the filter should be removed, and the accumulated debris washed back into the septic – not onto the lawn.
3. The drainfield area should be maintained to prevent overgrowth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
4. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

B. Suggestions to the Property Owner

1. Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
2. Used motor oil or any oily liquids should not be disposed of in a septic tank.
3. Be aware of the amount of water that you are using in the business. Water saving fixtures and devices can be installed on sinks and toilets to reduce the volume of wastewater that you are sending to your drain field.
4. Run dishwashers only when you have a full load.
5. Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drainfield.
6. Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and in some cases certain additives have been found to be detrimental to the life of a system.

INSTALLER CERTIFICATION

The septic system for the above-reference property has been installed in general accordance with the AOWE permit package prepared by Larry Thompson, LSS.

Signature: Dewey L Grant (Feb 8, 2024 18:27 EST)

Email: dewey@maidengrading.com

OWNER'S ACCEPTANCE

The septic system for the above-referenced property was specified by Larry Thompson, LSS, with the final installation work being performed by Dewey Grant. Mr. Thompson has shared his closeout package with us and we do hereby accept the septic system installed for this project.

Signature: ramon gonzalez (Feb 8, 2024 18:29 EST)

Email: romelle03@yahoo.com

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 07/07/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Mauney Insurance Agency, Inc
1205 E Main Street
Maiden NC 28650

CONTACT NAME: Lisa Lynch Davis
PHONE (A/C, No, Ext): (828)428-8231 **FAX (A/C, No):** (828)428-8237
E-MAIL ADDRESS: ldavis@mauneyinsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Erie Insurance Exchange	26271
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Maiden Grading and Septic Tank
214 S Main Ave
Maiden NC 28650

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			Q30-0621570	06/06/2023	06/06/2024	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1000000 $ 1000000 $ 5000 $ 1000000 $ 2000000 $ 2000000
A	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [ ] HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY			Q06-0530679	06/05/2023	06/05/2024	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE	$ $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: Y If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		Q91-5900316	07/09/2023	07/09/2024	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $1,000,000 $ $1,000,000 $ $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER
Thompson Enviromental Consulting, Inc
Post Office Box 541
Midland NC 28107
Fax:
Email: larry@thompsonenv.com

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Residential Subsurface Wastewater
Treatment and Disposal System AOWE Permit

for

Lot 20 – Twin Creek Estates
106 Rushing Water Lane
Troutman, NC 28166

Tax Parcel # 4730363694.000
March 29, 2023

Prepared for:

Four Corners of Charlotte, LLC
1612 Seattle Slew Court
Waxhaw NC 28173
704-713-2602



Prepared by:

Larry Thompson, REHS, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
larry@thompsonenv.com



Details

Four Corners of Charlotte LLC has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare an AOWE permit package for a new 4-bedroom single-family residence to be constructed on Lot 20 – Twin Creek Estates, located at 106 Rushing Water Lane, Troutman, North Carolina (Iredell County Parcel Number: 4730363694.000).

Based upon a soil investigation performed by TEC, it was determined that a sufficient amount of "Provisionally Suitable" Group IV soils are available in an offsite easement area for the installation of a **Pump to Accepted System** with a Prefabricated Permeable Block Panel System repair area for a 4-bedroom single-family residence at a 0.3 GPD/sq/ft long-term acceptance rate (LTAR). The property will be served by a municipal water supply.

Per Angela Berland, attorney/partner – Paladin Law, the offsite easement area is dedicated on the plat, as such, it runs with the land. A change in ownership does not affect the validity of the easement. There is no expiration date to a plat and the plat clearly indicates the area dedicated for the septic drainfield and defines the additional ingress/egress for the 11 foot easement from Lot 20 onto Lot 21.

This Notice of Intent to Construct is accurate and complete to the best of my knowledge and complies with G.S. 130A-336.2. Alternative Wastewater System Approvals for Nonengineered Systems.

Location

From Statesville, take US-21 S. to Wagner Street. Turn right onto Wagner Street (Perth Road), right onto State Park Road, and left onto Rushing Water Lane. Lot is the first lot on the right.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, April 1, 2017.

Accepted Wastewater System No. AWWS-2005-02-R6; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, August 21, 2015.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
NC Authorized Onsite Wastewater Evaluator No. 10016E
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer No. 1762
NC Certified Wastewater System Inspector No. 17621

Plans and Specifications

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1,000 gallons in capacity.
2. The septic tank shall be fitted with an approved effluent filter.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tanks have had time to properly cure and are free of cracks or other structural deficiencies.

B. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1,000 gallons in capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless-steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, Nema 4x-rated control panel. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.
5. Panel and control equipment shall include lightning protection, be protected from unauthorized access, and always remain accessible to the system operator.
6. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipe, Fittings and Supply Line

1. All discharge piping, connectors, and supply lines should be made of SCH 40 PVC and fitted with pressure-rated couplings.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. Supply line shall be constructed of 2-inch SCH 40 PVC pipe with pressure fittings.

D. Pressure Manifold

1. A pressure manifold shall be used to evenly distribute the wastewater.

2. The pressure manifold shall be contained within an adequately sized box/vault that will allow future repair lines to be installed and is designed to allow for drainage of effluent that may accumulate in it during flushing and head pressure adjustments. The box should be placed upon a gravel base.
3. A gate valve shall be provided at the pressure manifold box to allow for final pressure adjustment (2 foot of head pressure as per design).
4. The pressure manifold shall be constructed of SCH 80 PVC.
5. There shall be five (5) taps (1/2-inch SCH 40 PVC).
6. The connecting pipe between the pressure manifold taps and the drainfield shall be constructed of PVC.

E. Drainfield Installation

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. The property owner/builder should mark this area and isolate it as much as possible from construction traffic.
2. Under no circumstances shall any construction occur within the drainfield area while the soil is wet.
3. The specified system is an accepted wastewater system, specifically the Accepted 25% Reduction Chamber system.
4. The drainfield consists of five (5) lateral trenches to be constructed as 3-foot wide by 80 feet long. **Total drainline length is 400 feet.**
5. The maximum trench depth for this system shall be **24 inches (low side)**.
6. The laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
7. The trenches should be left open for the final inspection by the AOWE.

F. Final Landscaping

1. Final cover over the drainfield shall be at least 6 inches deep. Additional soil cover may be required to achieve the 6-inch requirement.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary), and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

G. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone, and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the local health department as soon as possible.
2. Lawn irrigation should not be placed over the drainfield area.

Maintenance

H. In General

1. The homeowner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation equivalent to 25 percent of the tank's volume. In some situations, the tanks may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner has the septic and pump tanks cleaned out annually.
3. When cleaning the effluent filter, the filter should be removed, and the accumulated debris will be washed back into the septic tank – not onto the lawn.
4. Any damp areas, leakages, or malfunctions in the drainfield area should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

Design Specifics

Daily Design Flow:	480 GPD – 4 bedroom house
Septic Tank Size:	1,000 Gallons (minimum)
Pump Tank Size:	1,000 Gallons (minimum)
Pump Size:	35.55 GPM at 20-ft TDH
Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	25% Reduction Chambers
Distribution Method:	Pressure Manifold
Number and Size of Taps:	(5) ½ Inch Sch. 40 PVC Taps
Number of Drainlines:	(5) 3-ft Wide x 80-ft Long,
Total Trench Length:	400 Linear Feet
Maximum Trench Depth:	24 Inches (Low Side)
Final Cover Requirement:	6 Inches
System Dosing Volume:	240 Gallons
Pump Run Time:	6.75 Minutes

Pump Tank Drawdown:	11.43 Inches

Repair Option

Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	PPBPS
Required Linear Footage:	267 Linear Feet
Available Linear Footage:	307 Linear Feet
Maximum Trench Depth:	24 Inches (Low Side)

PALADIN LAW

8936 NORTHPOINTE EXECUTIVE PARK DRIVE, SUITE 260
HUNTERSVILLE, NC 28078
(P) 980-216-8750
(F) 704.626.3294

ATTORNEYS:
ANGELA D. BERLAND (LICENSED IN NC)
M. BRIEN BOWLIN, JR. (LICENSED IN NC)

February 14th, 2023

To: Iredell County

RE: Lot 20, Twin Creek Estates, 106 Rushing Water Lane, Troutman, NC 28166

To Whom It May Concern:

We have been asked to prepare a letter of opinion regarding the validity of a dedicated 11' septic easement and easement area for Lot 20 of Twin Creek Estates, Phase 1, (commonly known as 106 Rushing Water Lane, Troutman, NC 28166). The aforementioned easement is depicted on Plat Book 47, Page 150 (Exhibit "A") and on a revised plat in Plat Book 49, Page 8 (Exhibit "B").

An easement is a non-possessory interest in the land of another and grants a right to make a specific use of land owned by another. An Implied Easement is one imposed by law and may be inferred from the facts surrounding the transaction.

Based on the facts here, an implied easement would have been created by the filing of the original plat in Plat Book 47, Page 150, and again by the revision of the plat in Plat Book 49, Page 8 by depicting the specific location of the easement on Lot 21 and further dedicating the specific location of Lot 21 to be used for the septic easement. Both plats were recorded with the Iredell County Register of Deeds, which is a reasonably sufficient writing, that provides a detailed description of the easement, and notice to subsequent purchasers of both Lots 20 and 21, of the existence and location of the easement. The plat clearly defines the parcels subject to the easement and defines the specified use of the easement.

Furthermore, the legal description used to convey the property to the owner of Lot 21 received a General Warranty Deed which references Plat Book 49, Page 8 which would further support that the owner took title subject to the existence of both the 11' Septic Easement, and the Septic Easement area as indicated on the plat. In addition, this would also show that the new owner had reasonable and sufficient notice of the existence of the easement.

It is also worth noting that several other lots located in the subdivision and depicted on Plat Book 49, Page 8 also have the same type of implied easements. Please see Lots 7, 8, and 16 referenced on the Exhibit B for further reference.

As such, it is our opinion that an implied easement was validly created by the recording of Plat 49, Page 8, which sufficiently identifies the location of the Septic Easement area and the 11' Septic Easement from Lot 20 to 21. This opinion has also been supported by a Title Insurance Company.

If you should need anything else, please do not hesitate to contact our office. We appreciate your assistance in this matter.

RESPECTFULLY,

Angela Berland

ANGELA D. BERLAND
ATTORNEY / PARTNER
PALADIN LAW
LICENSE #: 55625
ANGELA@PALADINLAWNC.COM

Sent at: 3/28/2023 5:07:15 PM

Re: Fw: Re: Re: Information on the lot 106 Rushing Waters Troutman

From: Angela Berland <angela@paladinlawnc.com>
To: Romelle03@yahoo.com <romelle03@yahoo.com>, Larry Thompson <larry@thompsonenv.com>

**** Our office is moving effective April 3, 2023. Our new address is:**

8015 W. Kenton Circle
Suite 110
Huntersville, NC 28078 **

Larry,

1. Answered by my letter – the easement area is dedicated on the plat, as such, it runs with the land. A change in ownership does not affect the validity of the easement.
2. There is no expiration date to a plat.
3. The plat clearly indicates the area dedicated to the area for the septic and defines the additional ingress/egress for the 11' easement from Lot 20 onto Lot 21.
    a. It does not specifiy anything with respect to installation, operation, maintenance, monitoring or repairs.

Larry, do you have where the other required .1938j stipulations are recorded : (1) is appurtenant to specifically described property and runs with the land and is not affected by change of ownership or control; (2) is valid for as long as the wastewater system is required for the facility that it is designed to serve; (3) describes and specifies the uses being granted and shall include ingress and egress, system installation, operation, maintenance, monitoring, and repairs:

Thank you,

Angela Berland
Attorney / Partner

PALADIN LAW

Angela@PaladinLawNC.com
8936 Northpointe Executive Park Drive
Suite 260
Huntersville, NC 28078
(Please contact our office to schedule an appointment.)
Office: 980.216.8750 Fax: 704.626.3294

A certified check will only be accepted for cash to close for sums less than $1,000.00. Anything over $1,000.00 must be a wire.

LENDER NOTICE: In order to provide the best possible service to our customers and ensure closing occurs on time, we require the following:

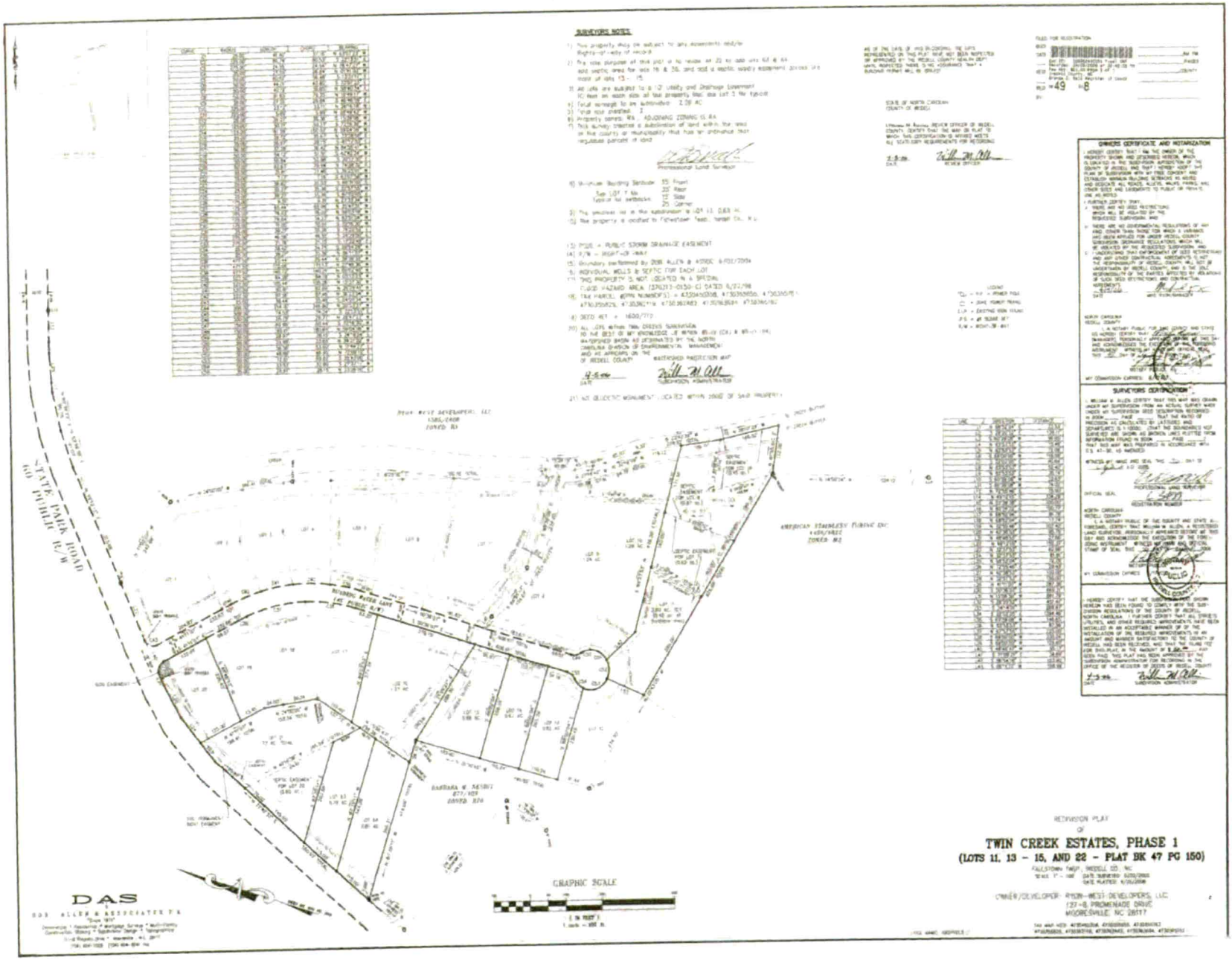
1. **Borrower's loan package must be received by our office NO LATER than 2:00 PM the day prior to closings scheduled between the hours of 9:00 AM and 12:00 PM;** OR
2. **Borrower's loan package must be received by our office NO LATER than 10:00 AM the day of closing for those scheduled between the hours of 1:00 PM and 4:00 PM.**

Failure to provide these documents within the time period specified will cause a delay in closing.

NOTICE: This electronic mail transmission may contain privileged attorney-client communication or non-public, personal information. If I mistakenly sent this to you, please delete it from your system without reading, copying or sending it to someone else. Also, please notify me of my mistake by replying to my email or by calling my office at 980.216.8750 so that I may correct my address record.

From: Romelle03@yahoo.com <romelle03@yahoo.com>
Date: Monday, March 27, 2023 at 9:02 PM
To: Angela Berland <angela@paladinlawnc.com>
Subject: Fw: Fw: Re: Re: Information on the lot 106 Rushing Waters Troutman

Romil Chudgar
Four Corners Of Charlotte | President


SURVEYORS NOTES
OWNERS CERTIFICATE AND NOTARIZATION
SURVEYORS CERTIFICATION
STATE PARK ROAD
GRAPHIC SCALE
DAS
REVISION PLAT
OF
TWIN CREEK ESTATES, PHASE 1
(LOTS 11, 13 - 15, AND 22 - PLAT BK 47 PG 150)

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
HELEN WOLSTENHOLME • Interim Deputy Secretary for Health
MARK T. BENTON • Assistant Secretary for Public Health
Division of Public Health

COMMON FORM FOR AUTHORIZED ON-SITE WASTEWATER EVALUATOR PERMIT OPTION FOR NON-ENGINEERED SYSTEMS

See Instructions for Use in Appendix A

Except for "Date received", this Section to be completed by the AOWE in accordance with G.S. 130A-336.2

LHD USE ONLY: Initial submittal of this NOI received: 4-14-2023 (Date) by BB (Initials)

PART 1: Notice of Intent to Construct (NOI) - Please check all that apply

☒ Single System or ☐ Multiple Systems

AND

☒ New ☐ Expansion ☐ Relocation of all or part of the Existing System ☐ Relocation of Repair Area

☐ Repair – LHD Permit Number _____ ☐ Repair – EOP/LSS COVID 19/AOWE Permit Number _____

1. Facility Owner's name: (Owner, Company Name, Utility, Partnership, Individual, etc.): Four Corners of Charlotte, LLC

Mailing address: 1612 Seattle Slew Court City: Waxhaw State: NC Zip: 28173

Telephone number: 704-713-2602 E-mail Address: romelle03@yahoo.com

2. Authorized On-Site Wastewater Evaluator (AOWE) name: Larry Thompson

LSS License number: 1208 AOWE Certification number: 10016E

Mailing address: PO Box 541 City: Midland State: NC Zip: 28107

Telephone number: 704-301-4881 E-mail Address: larry@thompsonenv.com

3. Licensed Geologist (LG) (if applicable) name: N/A License Number: _____

Mailing address: _____ City: _____ State: _____ Zip: _____

Telephone number: _____ E-mail Address: _____

4. Proof of Errors and Omissions or other appropriate liability insurance for the following persons is attached that includes the name of the insurer, name of the insured and the effective dates of coverage:

☒ AOWE ☐ LG

5. Property location (physical address, tax parcel identification number or subdivision lot, block number of the property to be permitted): 106 Rushing Water Lane, Troutman, NC 28166 (Parcel: 4730363694.000)

County Name: Iredell Twin Creek Estates Lot 20

BLDR-2023-22516 106 Rushing Water - Twin Creeks Lot 20

6. Type of facility: ■ Place of residence No. Bedrooms: 4 No. Occupants: 8
   ☐ Place of business Basis for flow calculation: _____
   ☐ Place of public assembly Basis for flow calculation: _____
7. Factors that would affect the wastewater load: Proposal is for domestic wastewater strength only.
8. Type and location of proposed wastewater system: Pump to offsite septic easement. System classification Type IIIb.
9. Design wastewater flow: 480 gpd
   Design wastewater strength: ■ domestic ☐ high strength ☐ industrial process *(For high strength and industrial process wastewater, a Professional Engineer licensed in accordance with G.S. 89C shall design the on-site wastewater system.)*
10. A plat as defined in G.S. 130A-334(7a) is attached: ■ Yes ☐ No
    A site plan as defined in G.S. 130A-334(13a) is attached: ■ Yes ☐ No
11. Location of proposed or existing wells (drinking water, irrigation, geothermal, groundwater monitoring, sampling, etc.) and any potable and non-potable water conveyance lines is indicated on attached plans and complies with 15A NCAC 18A .1950: ■ Yes ☐ No
    This is a saprolite system. ☐ Yes ■ No
12. Evaluation(s) of soil conditions and site features in accordance with G.S. 130A-335(a1) signed and sealed by a LSS is attached: ■ Yes ☐ No
13. Evaluation of geologic and hydrogeologic conditions signed and sealed by a LG is attached ☐ Yes ■ NA
14. Proposed landscape, site, drainage, or soil modifications are attached: ☐ Yes ■ NA

Attestation by AOWE pursuant to G.S. 130A-336.2

I, Larry Thompson hereby attest that the information required to be included with
Authorized On-Site Wastewater Evaluator (Print Name)
this Notice of Intent to Construct is accurate and complete to the best of my knowledge and that the proposed system shall meet applicable federal, State, and local laws, regulations, rules and ordinances, and that the proposed system does not require a Professional Engineer, licensed in accordance with G.S. 89C, and in accordance with 15A NCAC 18A .1938 and activities determined to be engineering as determined by the North Carolina Board of Examiners for Engineers and Surveyors.

_____ 03-29-23
Signature of Authorized On-Site Wastewater Evaluator *Date*

Owner self-submittal of NOI:

I, _____ hereby submit this NOI prepared by _____
Print Name of Owner *Print Name of Licensed PE*

pursuant to G.S. 130A-336.1.

_____ _____
Signature of Owner *Date*

NOTES:

LIABILITY: The Department, the Department's authorized agents, or local health departments shall have no liability for wastewater systems designed, constructed, and installed pursuant to an AOWE Permit Option [G.S. 130A-336.2(f)]

RIGHT OF ENTRY: The submittal of this **Notice of Intent to Construct** *grants right of entry to the Local Health Department and the State to the referenced property.*

ISSUANCE OF BUILDING PERMIT: Once the LHD deems that the Notice of Intent to Construct is complete via signature in the section below, the owner may apply to the local permitting agency for a permit for electrical, plumbing, heating, air conditioning or other construction, location, or relocation activity under any provision of general or special law pursuant to G.S. 130A-338.

This section for Local Health Department use only.

PART 2: *LHD Completeness Review of the Notice of Intent to Construct*

"(c) Completeness Review for Notice of Intent to Construct. –The local health department shall determine whether the notice of intent to construct required pursuant to subsection (b) of this section is complete within five business days after receiving the notice of intent to construct. A determination of completeness means that the notice of intent to construct includes all of the required components. If the local health department determines that the notice of intent to construct is incomplete, the local health department shall notify the owner and list the information needed to complete the notice. The owner may then submit additional information to the local health department to cure the deficiencies in the initial notice. The local health department shall make a final determination as to whether the notice of intent to construct is complete within five business days after the department receives the additional information. If the local health department fails to act within any time period set out in this subsection, the owner may treat the failure to act as a determination of completeness. The owner shall be able to apply for the building permit for the project upon the decision of completeness of the notice of intent by the local health department or if the local health department fails to act within the five business day time period."

The review for completeness of this Notice of Intent was conducted in accordance with G.S. 130A-336.2(c). This NOI is determined to be:

☐ INCOMPLETE (If box is checked, Information in this section is required.)

Based upon review of information submitted in Part 1, the following items are missing: _____

_____

Copies of this form listing missing items were sent to the AOWE and the Owner on _____
Date

via _____ with directions to re-submit missing items using Page 5 of this form.
Email, FAX, USPS, hand-delivered

_____	_____	_____
Print Name of Authorized Agent of the LHD	*Signature of Authorized Agent of the LHD*	*Date*

☑ COMPLETE (If box is checked, information in this section is required.)

Based upon review of information submitted in Part 1 of this form, this NOI is deemed COMPLETE.

Copies of this signed form were sent to the AOWE and the Owner on 4-18-23 (*Date*) via Email (*Email, FAX, USPS, hand-delivered*).

A copy of this NOI and tracking information was sent to the State on 4-18-23 (*Date*) via Email (*Email, FAX, USPS, hand-delivered*).

Benjamin A. Bottoms	Benjamin A Bottoms	4-18-2023
Print Name of Authorized Agent of the LHD	*Signature of Authorized Agent of the LHD*	*Date*

Re-submittal of NOI with missing items included

This Section is for use by owner to submit items noted as missing during LHD Completeness Review above.
Resubmittals must be accompanied by a cover letter from the AOWE.

LHD USE ONLY: This NOI resubmittal received: _____ by _____
Date *Initials*

Item # from initial NOI	Resubmittal description

Attestation by AOWE certified in North Carolina pursuant to G.S. 130A-336.2

I, _____ hereby attest that the information required to be included with
Authorized On-Site Wastewater Evaluator (Print Name)
this Notice of Intent to Construct is accurate and complete to the best of my knowledge and that the proposed system shall meet applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Authorized On-Site Wastewater Evaluator *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Notice of Intent to Construct

This follow-up review for completeness of this Notice and Intent was conducted in accordance with G.S. 130A-336.2(c). This NOI is determined to be:

☐ INCOMPLETE
Based upon review of information submitted in the RESUBMITTAL above, this Notice of Intent remains INCOMPETE because the following items from Part 1 of this form remain missing: _____
_____.

Copies of this signed form were sent to the AOWE and the Owner on _____ via _____.
Date *Email, FAX, USPS, Hand-delivered*

_____ _____ _____
Print name of authorized Agent of the LHD *Signature of authorized Agent of the LHD* *Date*

☐ COMPLETE
Based upon review of information submitted in the RESUBMITTAL above in addition to information provided in Part 1 of this form, this NOI is deemed complete.

Copies of this signed form were sent to the AOWE and the Owner on _____ via _____.
Date *Email, FAX, USPS, Hand-delivered*

A complete copy of this form with tracking information was sent to the State: _____ via _____.
Date *Email, FAX, USPS, hand-delivered*

_____ _____ _____
Print name of authorized Agent of the LHD *Signature of authorized Agent of the LHD* *Date*

AOWE ATO Form Not Required to be completed for Op.

LHD Reference: OSWP-2023-20735

See attached AOWE ATO Received 2-9-24

PART 3: **Authorization to Operate (ATO)**

Except for date received, the Section below is to be completed by the Owner.

LHD USE ONLY: Initial submittal of request for ATO received: _____ by _____
Date *Initials*

Date of Post-construction Conference: _____

T

The following items are included in this submittal for an Authorization to Operate under an AOWE permit:

1. Signed and sealed copy of the AOWE's report that includes the information in G.S. 130A-336.2(k) ☐ Yes ☐ No
2. Operation and management program ☐ Yes ☐ No
3. Fee (as applicable) ☐ Yes ☐ No
4. Notarized letter documenting Owner's acceptance of the system from the AOWE ☐ Yes ☐ No
5. On-site Wastewater Contractor name: _____ License number: _____

   Mailing address: _____ City: _____ State: _____ Zip: _____

   Telephone number: _____ E-mail Address: _____
6. Proof of Errors and Omissions or other appropriate liability insurance for the On-site Wastewater Contractor is attached and includes the name of the insurer, name of the insured, and the effective dates of coverage.
   ☐ Yes ☐ No

Attestation by the Owner for Authorization to Operate

I, _____ hereby attest that all items indicated above have been provided to the
Print name of Owner
_____County LHD and the system shall meet applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Owner *Date*

This section for LHD Use Only.

LHD Review of required information for the ATO

☐ INCOMPLETE

Based upon review of information submitted in the Section above, the following items are missing from the information required for an Authorization to Operate for an AOWE permit: _____

_____.

Copies of this signed form were sent to the AOWE and the Owner on _____ via _____.
Date *Email, FAX, USPS, Hand-delivered*

_____ _____ _____
Print name of authorized Agent of the LHD *Signature of authorized Agent of the LHD* *Date*

☐ COMPLETE

Based upon review of information submitted in the Section above, this Authorization to Operate is hereby issued in accordance with G.S. 130A-336.2(m).

A copy of this complete NOI/ATO with tracking information was sent to the State on _____ via _____.
Date *Email, FAX, USPS, Hand-delivered*

_____ _____ _____
Print name of authorized Agent of the LHD *Signature of authorized Agent of the LHD* *Date*

ISSUANCE OF CERTIFICATE OF OCCUPANCY: Once the LHD determines completeness based upon the ATO submission, the owner may apply to the local permitting agency for permanent electrical service to a residence, place of business or place of public assembly pursuant to G.S. 130A-339.

AGENT AUTHORIZATION FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. 20 PHASE _____ PARCEL ID: 4730363694.000

STREET ADDRESS: 106 Rushing Water Lane (Twin Creek Estates)
Troutman, NC 28166

Please print:

Property Owner: Four Corners of Charlotte LLC

Property Owner: _____

The undersigned, registered property owners of the above noted property, do hereby authorize

Larry Thompson, LSS, of Thompson Environmental Consulting, Inc.
(Contractor / Agent) (Name of consulting firm)

to act on my behalf and take all actions necessary for the processing, issuance and acceptance of this permit or certification and any and all standard and special conditions attached.

Property Owner's Address (if different than property above):
1612 Seattle Slew Court, Waxhaw NC 28173

Telephone: 704-713-2602

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

Owner Signature:
ramon gonzalez (Dec 7, 2022 13:56 EST)

Date: Dec 7, 2022

Owner Signature: _____

Date: _____

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/7/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Higginbotham Insurance Agency, Inc.
500 W. 13th Street
Fort Worth TX 76102

License#: 2081754

CONTACT NAME: David Vaughan
PHONE (A/C, No, Ext): 9187797880 **FAX (A/C, No):** 817-882-9284
E-MAIL ADDRESS: dlvjr@higginbotham.net

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Mid-Continent Casualty Company	23418
INSURER B : Hartford Underwriters Insurance Company	30104
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Thompson Environmental Consulting, Inc.
PO Box 541
Midland NC 28107-0541

THOMENV-01

COVERAGES **CERTIFICATE NUMBER:** 1600075032 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			04-GL-001086672	9/25/2022	9/25/2023	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
	X Professional						MED EXP (Any one person)	$ Excluded
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 1,000,000
	X POLICY [ ] PRO-JECT [ ] LOC						GENERAL AGGREGATE	$ 3,000,000
	OTHER:						PRODUCTS - COMP/OP AGG	$ 3,000,000
								$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB [ ] OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$
	DED [ ] RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N	N / A		38WECNW6175	10/17/2022	10/17/2023	X PER STATUTE [ ] OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] (Mandatory in NH)						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

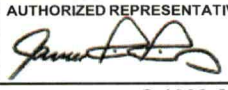
CERTIFICATE HOLDER

For Informational Purposes

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



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Residential Subsurface Wastewater Treatment and Disposal System AOWE Permit

for

Lot 20 – Twin Creek Estates
106 Rushing Water Lane
Troutman, NC 28166

Tax Parcel # 4730363694.000
March 29, 2023

Prepared for:

Four Corners of Charlotte, LLC
1612 Seattle Slew Court
Waxhaw NC 28173
704-713-2602



Prepared by:

Larry Thompson, REHS, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
larry@thompsonenv.com



Details

Four Corners of Charlotte LLC has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare an AOWE permit package for a new 4-bedroom single-family residence to be constructed on Lot 20 – Twin Creek Estates, located at 106 Rushing Water Lane, Troutman, North Carolina (Iredell County Parcel Number: 4730363694.000).

Based upon a soil investigation performed by TEC, it was determined that a sufficient amount of "Provisionally Suitable" Group IV soils are available in an offsite easement area for the installation of a **Pump to Accepted System** with a Prefabricated Permeable Block Panel System repair area for a 4-bedroom single-family residence at a 0.3 GPD/sq/ft long-term acceptance rate (LTAR). The property will be served by a municipal water supply.

Per Angela Berland, attorney/partner – Paladin Law, the offsite easement area is dedicated on the plat, as such, it runs with the land. A change in ownership does not affect the validity of the easement. There is no expiration date to a plat and the plat clearly indicates the area dedicated for the septic drainfield and defines the additional ingress/egress for the 11 foot easement from Lot 20 onto Lot 21.

This Notice of Intent to Construct is accurate and complete to the best of my knowledge and complies with G.S. 130A-336.2. Alternative Wastewater System Approvals for Nonengineered Systems.

Location

From Statesville, take US-21 S. to Wagner Street. Turn right onto Wagner Street (Perth Road), right onto State Park Road, and left onto Rushing Water Lane. Lot is the first lot on the right.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, April 1, 2017.

Accepted Wastewater System No. AWWS-2005-02-R6; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, August 21, 2015.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
NC Authorized Onsite Wastewater Evaluator No. 10016E
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer No. 1762
NC Certified Wastewater System Inspector No. 17621

Plans and Specifications

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1,000 gallons in capacity.
2. The septic tank shall be fitted with an approved effluent filter.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tanks have had time to properly cure and are free of cracks or other structural deficiencies.

B. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1,000 gallons in capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless-steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, Nema 4x-rated control panel. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.
5. Panel and control equipment shall include lightning protection, be protected from unauthorized access, and always remain accessible to the system operator.
6. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipe, Fittings and Supply Line

1. All discharge piping, connectors, and supply lines should be made of SCH 40 PVC and fitted with pressure-rated couplings.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. Supply line shall be constructed of 2-inch SCH 40 PVC pipe with pressure fittings.

D. Pressure Manifold

1. A pressure manifold shall be used to evenly distribute the wastewater.

2. The pressure manifold shall be contained within an adequately sized box/vault that will allow future repair lines to be installed and is designed to allow for drainage of effluent that may accumulate in it during flushing and head pressure adjustments. The box should be placed upon a gravel base.
3. A gate valve shall be provided at the pressure manifold box to allow for final pressure adjustment (2 foot of head pressure as per design).
4. The pressure manifold shall be constructed of SCH 80 PVC.
5. There shall be five (5) taps (1/2-inch SCH 40 PVC).
6. The connecting pipe between the pressure manifold taps and the drainfield shall be constructed of PVC.

E. Drainfield Installation

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. The property owner/builder should mark this area and isolate it as much as possible from construction traffic.
2. Under no circumstances shall any construction occur within the drainfield area while the soil is wet.
3. The specified system is an accepted wastewater system, specifically the Accepted 25% Reduction Chamber system.
4. The drainfield consists of five (5) lateral trenches to be constructed as 3-foot wide by 80 feet long. **Total drainline length is 400 feet**.
5. The maximum trench depth for this system shall be **24 inches (low side)**.
6. The laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
7. The trenches should be left open for the final inspection by the AOWE.

F. Final Landscaping

1. Final cover over the drainfield shall be at least 6 inches deep. Additional soil cover may be required to achieve the 6-inch requirement.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary), and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

G. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone, and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the local health department as soon as possible.
2. Lawn irrigation should not be placed over the drainfield area.

Maintenance

H. In General

1. The homeowner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation equivalent to 25 percent of the tank's volume. In some situations, the tanks may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner has the septic and pump tanks cleaned out annually.
3. When cleaning the effluent filter, the filter should be removed, and the accumulated debris will be washed back into the septic tank – not onto the lawn.
4. Any damp areas, leakages, or malfunctions in the drainfield area should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

Design Specifics

Daily Design Flow:	480 GPD – 4 bedroom house
Septic Tank Size:	1,000 Gallons (minimum)
Pump Tank Size:	1,000 Gallons (minimum)
Pump Size:	35.55 GPM at 20-ft TDH
Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	25% Reduction Chambers
Distribution Method:	Pressure Manifold
Number and Size of Taps:	(5) ½ Inch Sch. 40 PVC Taps
Number of Drainlines:	(5) 3-ft Wide x 80-ft Long,
Total Trench Length:	400 Linear Feet
Maximum Trench Depth:	24 Inches (Low Side)
Final Cover Requirement:	6 Inches
System Dosing Volume:	240 Gallons
Pump Run Time:	6.75 Minutes

Pump Tank Drawdown:	11.43 Inches

Repair Option

Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	PPBPS
Required Linear Footage:	267 Linear Feet
Available Linear Footage:	307 Linear Feet
Maximum Trench Depth:	24 Inches (Low Side)

PALADIN LAW

8936 NORTHPOINTE EXECUTIVE PARK DRIVE, SUITE 260
HUNTERSVILLE, NC 28078
(P) 980-216-8750
(F) 704.626.3294

ATTORNEYS:
ANGELA D. BERLAND (LICENSED IN NC)
M. BRIEN BOWLIN, JR. (LICENSED IN NC)

February 14th, 2023

To: Iredell County

RE: Lot 20, Twin Creek Estates, 106 Rushing Water Lane, Troutman, NC 28166

To Whom It May Concern:

We have been asked to prepare a letter of opinion regarding the validity of a dedicated 11' septic easement and easement area for Lot 20 of Twin Creek Estates, Phase 1, (commonly known as 106 Rushing Water Lane, Troutman, NC 28166). The aforementioned easement is depicted on Plat Book 47, Page 150 (Exhibit "A") and on a revised plat in Plat Book 49, Page 8 (Exhibit "B").

An easement is a non-possessory interest in the land of another and grants a right to make a specific use of land owned by another. An Implied Easement is one imposed by law and may be inferred from the facts surrounding the transaction.

Based on the facts here, an implied easement would have been created by the filing of the original plat in Plat Book 47, Page 150, and again by the revision of the plat in Plat Book 49, Page 8 by depicting the specific location of the easement on Lot 21 and further dedicating the specific location of Lot 21 to be used for the septic easement. Both plats were recorded with the Iredell County Register of Deeds, which is a reasonably sufficient writing, that provides a detailed description of the easement, and notice to subsequent purchasers of both Lots 20 and 21, of the existence and location of the easement. The plat clearly defines the parcels subject to the easement and defines the specified use of the easement.

Furthermore, the legal description used to convey the property to the owner of Lot 21 received a General Warranty Deed which references Plat Book 49, Page 8 which would further support that the owner took title subject to the existence of both the 11' Septic Easement, and the Septic Easement area as indicated on the plat. In addition, this would also show that the new owner had reasonable and sufficient notice of the existence of the easement.

It is also worth noting that several other lots located in the subdivision and depicted on Plat Book 49, Page 8 also have the same type of implied easements. Please see Lots 7, 8, and 16 referenced on the Exhibit B for further reference.

As such, it is our opinion that an implied easement was validly created by the recording of Plat 49, Page 8, which sufficiently identifies the location of the Septic Easement area and the 11' Septic Easement from Lot 20 to 21. This opinion has also been supported by a Title Insurance Company.

If you should need anything else, please do not hesitate to contact our office. We appreciate your assistance in this matter.

RESPECTFULLY,

Angela Berland

ANGELA D. BERLAND
ATTORNEY / PARTNER
PALADIN LAW
LICENSE #: 55625
ANGELA@PALADINLAWNC.COM

Sent at: 3/28/2023 5:07:15 PM

Re: Fw: Re: Re: Information on the lot 106 Rushing Waters Troutman

From: Angela Berland <angela@paladinlawnc.com>
To: Romelle03@yahoo.com <romelle03@yahoo.com>, Larry Thompson <larry@thompsonenv.com>

**** Our office is moving effective April 3, 2023. Our new address is:**

8015 W. Kenton Circle
Suite 110
Huntersville, NC 28078 **

Larry,

1. Answered by my letter – the easement area is dedicated on the plat, as such, it runs with the land. A change in ownership does not affect the validity of the easement.
2. There is no expiration date to a plat.
3. The plat clearly indicates the area dedicated to the area for the septic and defines the additional ingress/egress for the 11' easement from Lot 20 onto Lot 21.
    a. It does not specifiy anything with respect to installation, operation, maintenance, monitoring or repairs.

Larry, do you have where the other required .1938j stipulations are recorded : (1) is appurtenant to specifically described property and runs with the land and is not affected by change of ownership or control; (2) is valid for as long as the wastewater system is required for the facility that it is designed to serve; (3) describes and specifies the uses being granted and shall include ingress and egress, system installation, operation, maintenance, monitoring, and repairs:

Thank you,

Angela Berland
Attorney / Partner

PALADIN LAW

Angela@PaladinLawNC.com
8936 Northpointe Executive Park Drive
Suite 260
Huntersville, NC 28078
(Please contact our office to schedule an appointment.)
Office: 980.216.8750 Fax: 704.626.3294

A certified check will only be accepted for cash to close for sums less than $1,000.00. Anything over $1,000.00 must be a wire.

LENDER NOTICE: In order to provide the best possible service to our customers and ensure closing occurs on time, we require the following:

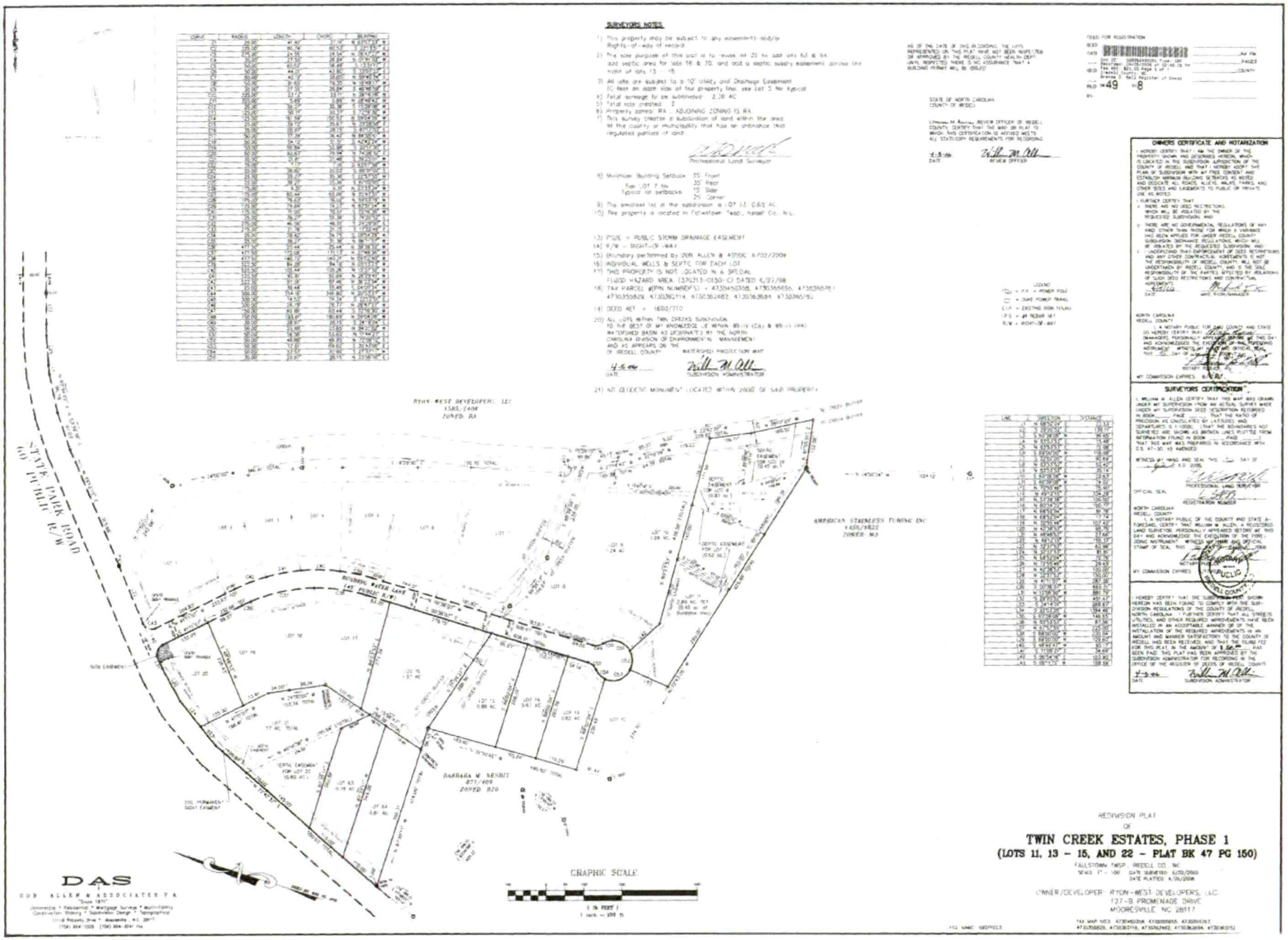
1. **Borrower's loan package must be received by our office NO LATER than 2:00 PM the day prior to closings scheduled between the hours of 9:00 AM and 12:00 PM;** OR
2. **Borrower's loan package must be received by our office NO LATER than 10:00 AM the day of closing for those scheduled between the hours of 1:00 PM and 4:00 PM.**

Failure to provide these documents within the time period specified will cause a delay in closing.

NOTICE: This electronic mail transmission may contain privileged attorney-client communication or non-public, personal information. If I mistakenly sent this to you, please delete it from your system without reading, copying or sending it to someone else. Also, please notify me of my mistake by replying to my email or by calling my office at 980.216.8750 so that I may correct my address record.

From: Romelle03@yahoo.com <romelle03@yahoo.com>
Date: Monday, March 27, 2023 at 9:02 PM
To: Angela Berland <angela@paladinlawnc.com>
Subject: Fw: Fw: Re: Re: Information on the lot 106 Rushing Waters Troutman

Romil Chudgar
Four Corners Of Charlotte | President


SURVEYORS NOTES:
1) This property shall be subject to any easements and/or Rights-of-way of record.
2) The sole purpose of this plat is to revise lot 23 to add lots 65 & 66 and septic area for lots 16 & 70, and add a septic subsidy easement across the rear of lots 13 - 15.
3) All lots are subject to a 10' Utility and Drainage Easement (5' front on each side of the property line, see Lot 5 for typical)
4) Total acreage to be subdivided: 2.28 AC
5) Total lots created: 2
6) Property zoned: RA - ADJOINING ZONING IS RA
7) This survey creates a subdivision of land within the area as the county or municipality that has an ordinance that regulates parcels of land
Professional Land Surveyor
8) Minimum Building Setback: 55' Front
For LOT 7 Nly: 35' Rear
Typical lot setbacks: 15' Side
25' Corner
9) The smallest lot in the subdivision is LOT 13, 0.63 AC.
10) The property is located in Fallstown Twsp., Iredell Co., N.C.
13) PSDE = PUBLIC STORM DRAINAGE EASEMENT
14) R/W = RIGHT-OF-WAY
15) Boundary performed By: DON ALLEN & ASSOC. 6/02/2004
16) INDIVIDUAL WELLS & SEPTIC FOR EACH LOT
17) THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA. (3702131-0150-C) DATED 6/22/98
18) T&M PARCEL #(PIN NUMBERS) - 4735945358, 4735944656, 4735856781, 4735855829, 4735862114, 4735862482, 4735863894, 4735865152
19) DEED REF. - 1602/770
20) ALL LOTS within TWIN CREEKS SUBDIVISION TO THE BEST OF MY KNOWLEDGE LIE WITHIN WS-IV (CA) & WS-IV (PA) WATERSHED BASIN AS DESIGNATED BY THE NORTH CAROLINA DIVISION OF ENVIRONMENTAL MANAGEMENT AND AS APPEARS ON THE OFFICIAL WATERSHED PROTECTION MAP OF IREDELL COUNTY
SUBDIVISION ADMINISTRATOR
21) NO GEODETIC MONUMENT LOCATED WITHIN 2000' OF SAID PROPERTY
AS OF THE DATE OF THIS RECORDING, THE LOTS REPRESENTED ON THIS PLAT HAVE NOT BEEN INSPECTED OR APPROVED BY THE IREDELL COUNTY HEALTH DEPT. UNTIL INSPECTED, THERE IS NO ASSURANCE THAT A BUILDING PERMIT WILL BE ISSUED
STATE OF NORTH CAROLINA
COUNTY OF IREDELL
I, [illegible], REVIEW OFFICER OF IREDELL COUNTY, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.
REVIEW OFFICER
FILED FOR REGISTRATION
BOOK
DATE
TIME
Recorded
Fee
Iredell County, NC
Brenda S. Register of Deeds
BOOK 49 PAGE 8
BY:
OWNERS CERTIFICATE AND NOTARIZATION
I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, WHICH IS LOCATED IN THE SUBDIVISION JURISDICTION OF THE COUNTY OF IREDELL AND THAT I HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY FREE CONSENT AND ESTABLISH MINIMUM BUILDING SETBACKS AS NOTED AND DEDICATE ALL ROADS, ALLEYS, WALKS, PARKS, AND OTHER SITES AND EASEMENTS TO PUBLIC OR PRIVATE USE AS NOTED.
I FURTHER CERTIFY THAT
A. THERE ARE NO DEED RESTRICTIONS WHICH WILL BE VIOLATED BY THE REQUESTED SUBDIVISION; AND
B. THERE ARE NO GOVERNMENTAL REGULATIONS OF ANY AND OTHER THAN THOSE FOR WHICH A VARIANCE HAS BEEN APPLIED FOR UNDER IREDELL COUNTY SUBDIVISION ORDINANCE REGULATIONS WHICH WILL BE VIOLATED BY THE REQUESTED SUBDIVISION; AND
C. UNDERSTAND THAT ENFORCEMENT OF DEED RESTRICTIONS AND ANY OTHER CONTRACTUAL AGREEMENTS IS NOT THE RESPONSIBILITY OF IREDELL COUNTY, ALL NOT OF UNDERTAKEN BY IREDELL COUNTY, AND IS THE SOLE RESPONSIBILITY OF THE PARTIES AFFECTED BY AGREEMENTS OF SUCH DEED RESTRICTIONS AND CONTRACTUAL AGREEMENTS.
MANAGER
NORTH CAROLINA
IREDELL COUNTY
I, A NOTARY PUBLIC FOR SAID COUNTY AND STATE DO HEREBY CERTIFY THAT [illegible] PERSONALLY APPEARED BEFORE ME THIS DAY AND ACKNOWLEDGED THE EXECUTION OF THE FOREGOING INSTRUMENT. WITNESS MY HAND AND OFFICIAL SEAL, THIS [illegible] DAY OF [illegible], 2006.
NOTARY PUBLIC
MY COMMISSION EXPIRES: 6/4/07
SURVEYORS CERTIFICATION
I, WILLIAM M. ALLEN CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK ____, PAGE ____; THAT THE RATIO OF PRECISION AS CALCULATED BY LATITUDES AND DEPARTURES IS 1:10000; THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN BOOK ____, PAGE ____; THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED.
WITNESS MY HAND AND SEAL THIS [illegible] DAY OF [illegible] A.D. 2006.
PROFESSIONAL LAND SURVEYOR
OFFICIAL SEAL
REGISTRATION NUMBER
NORTH CAROLINA
IREDELL COUNTY
I, A NOTARY PUBLIC OF THE COUNTY AND STATE AFORESAID, CERTIFY THAT WILLIAM M. ALLEN, A REGISTERED LAND SURVEYOR, PERSONALLY APPEARED BEFORE ME THIS DAY AND ACKNOWLEDGE THE EXECUTION OF THE FOREGOING INSTRUMENT. WITNESS MY HAND AND OFFICIAL STAMP OF SEAL, THIS [illegible] DAY OF [illegible], 2006.
NOTARY PUBLIC
MY COMMISSION EXPIRES: 6/4/07
I HEREBY CERTIFY THAT THE SUBDIVISION AS SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE COUNTY OF IREDELL, NORTH CAROLINA. I FURTHER CERTIFY THAT ALL STREETS, UTILITIES, AND OTHER REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER OR OF THE INSTALLATION OF THE REQUIRED IMPROVEMENTS IN AN AMOUNT AND MANNER SATISFACTORY TO THE COUNTY OF IREDELL HAS BEEN RECEIVED, AND THAT THE PLANS FEE FOR THIS PLAT IN THE AMOUNT OF $ 50.00 HAS BEEN PAID. THIS PLAT HAS BEEN APPROVED BY THE SUBDIVISION ADMINISTRATOR FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS OF IREDELL COUNTY.
SUBDIVISION ADMINISTRATOR
LEGEND
"DU" = P.K. = POWER POLE
"DP" = DUKE POWER TRANS.
E.I.P. = EXISTING IRON PIPE/ROD
P.S. = #4 REBAR SET
R/W = RIGHT-OF-WAY
RYAN-WEST DEVELOPERS, LLC
1585/2408
ZONED: RA
AMERICAN STAINLESS TUBING INC
1455/1822
ZONED: MX
BARBARA W. NESBIT
877/409
ZONED: RA
BUILDING WATER LINE
(40' PUBLIC R/W)
GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.
DAS
DON ALLEN & ASSOCIATES P.A.
"Since 1970"
Commercial • Residential • Mortgage Survey • Multi-Family
Construction Staking • Subdivision Design • Topographical
1114 Waverly Drive • Statesville, N.C. 28677
(704) 864-1029 (704) 864-8041 Fax
REDIVISION PLAT
OF
TWIN CREEK ESTATES, PHASE 1
(LOTS 11, 13 - 15, AND 22 - PLAT BK 47 PG 150)
FALLSTOWN TWSP., IREDELL CO., NC
SCALE: 1" = 100' DATE SURVEYED: 6/02/2006
DATE PLATTED: 6/26/2006
OWNER/DEVELOPER: RYAN-WEST DEVELOPERS, LLC
127-B PROMENADE DRIVE
MOORESVILLE, NC 28117
TAX MAP NO'S: 4735945358, 4735856829, 4735944656, 4735855829, 4735862114, 4735862482, 4735863894, 4735865152
FIELD MARK: IRON PIPES

PRELIMINARY SOIL AND SITE EVALUATION

Off-Site Easement Area
Lot 20 – Twin Creek Estates
106 Rushing Water Lane
Troutman, NC 28166

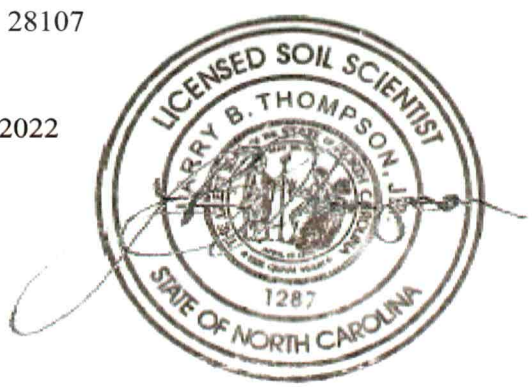
Prepared For:

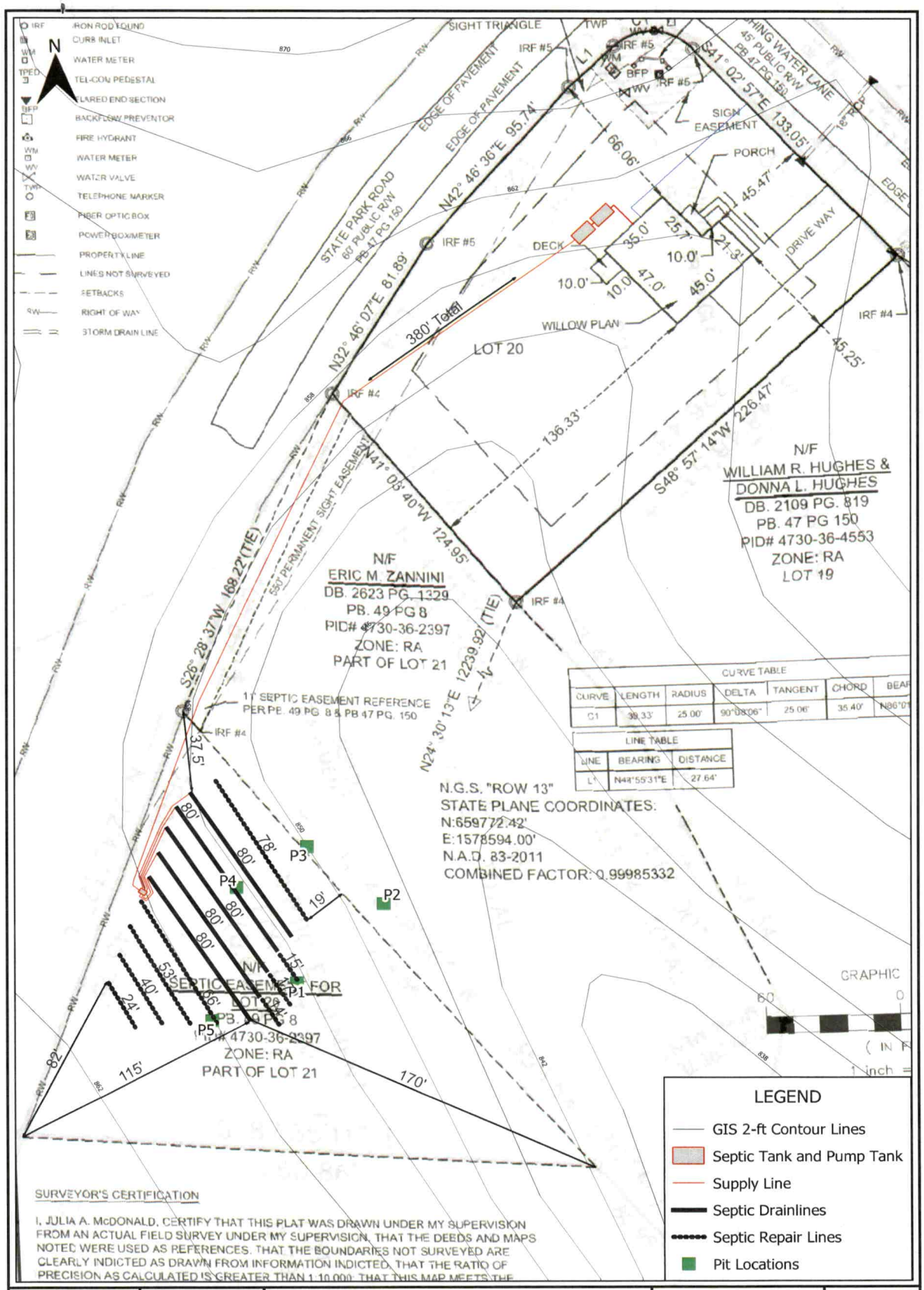
Four Corners of Charlotte LLC
1612 Seattle Slew Court
Waxhaw, NC 28173

Prepared By:

Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107

March 25, 2022





SURVEYOR'S CERTIFICATION

I, JULIA A. McDONALD, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL FIELD SURVEY UNDER MY SUPERVISION, THAT THE DEEDS AND MAPS NOTED WERE USED AS REFERENCES, THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICTED AS DRAWN FROM INFORMATION INDICTED, THAT THE RATIO OF PRECISION AS CALCULATED IS GREATER THAN 1:10,000, THAT THIS MAP MEETS THE

Thompson Environmental Consulting

Prepared For:
Four Corners of Charlotte LLC

Proposed Septic Layout

Lot 20 - Twin Creek Estates
106 Rushing Water Lane
Troutman, NC 28166

Iredell County

Date: March 2023

Scale: 0 25 50 ft

TEC Job #: 22-377

Figure 1

INTRODUCTION & SITE DESCRIPTION

This Soil and Site Evaluation was performed on a 0.60-acre off-site easement area for Lot 20 – Twin Creek Estates, 106 Rushing Water Lane, North Carolina. The lot is known as Iredell County Tax Parcel ID: 4730363694.000, while the easement area is located on Parcel ID: 4730362397.000.

Thompson Environmental Consulting, Inc. (TEC) was retained to determine whether the soils were suitable for onsite subsurface wastewater treatment and disposal. The property was evaluated in accordance with North Carolina statutes for waste disposal ("Laws and Rules for Sewage Treatment and Disposal Systems", amended April 1, 2017).

INVESTIGATION METHODOLOGY & SITE PHYSICAL CHARACTERISTICS

Individual soil borings were evaluated, and soil color was determined with a Munsell Soil Color Chart. Observations of the landscape (slope, drainage patterns, etc.) as well as soil properties (depth, texture, structure, seasonal wetness, restrictive horizons, etc.) were recorded.

The off-site easement area is currently undeveloped and is vegetated with a coniferous forest.

FINDINGS

A field survey was conducted on March 9, 2022, by Larry Thompson, LSS. Five pits were described within the project study area and locations noted in the attached Figure 1.

All pits were rated as Provisionally Suitable for the installation of a subsurface wastewater treatment and disposal system utilizing Accepted System and Prefabricated Permeable Block Panel System drainfield products and are denoted in the attached Figure as green points. Surfaces typically exhibited friable clay loam textures with weak, medium, granular structure 4 to 6 inches in depth. Upper subsurface horizons exhibited firm clay textures with moderate, medium, subangular blocky structure 40 inches and greater in depth. A long-term acceptance rates (LTAR) of 0.3 gal./day/sq. ft. would be recommended for these soils.

DISCUSSION

The soils observed within the project study area will support the installation of a subsurface wastewater treatment and disposal system utilizing Accepted System or Prefabricated Permeable Block Panel System drainfield products. It is estimated that 6,600 square feet of suitable soil area would need to be allocated and left completely available for the installation and required repair area for an Accepted System serving a 4-bedroom single family residence.

The required drainfield area can be reduced by 25% if using the Prefabricated Permeable Block Panel System.

CONCLUSION

The findings presented herein represent TEC's professional opinion based on our Soil and Site Evaluation and knowledge of the current laws and rules governing on-site wastewater systems in North Carolina. Soils naturally change across a landscape and contain many inclusions. As such, attempts to quantify them are not always precise and exact. Due to this inherent variability of soils and the subjectivity when determining limiting factors, there is no guarantee that a regulating authority will agree with the findings of this report.

Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107

PROPERTY ID #: 1730363694.000
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Four Corners of Charlotte LLC
ADDRESS:
PROPOSED FACILITY: Lots PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: Lots Rushing Water Lane, Troutman, NC
DATE EVALUATED: 3-9-22
PROPERTY SIZE:
PROPERTY RECORDED:
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other Lot 20 - Twin Creek Est.
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 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 5%	0-3	GR/SL	FR NSNP/VFR	—	42	—	—	PS 0.3
		3-42	SBK/C	FR SS/SP					
2	LS 5%	0-4	GR/SL	FR SS/SP/VFR	—	40	—	—	PS 0.3
		4-40	SBK/C	FR SS/SP/VFR					
3	LS 5%	0-4	GR/SL	FR SS/SP/VFR	—	46	—	—	PS 0.3
		4-46	SBK/C	FR SS/SP/VFR					
4	LS 5%	0-6	GR/SL	FR SS/SP/VFR	—	43	—	—	PS 0.3
		6-43	SBK/C	FR SS/SP/VFR					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	Accepted	PPRBS
Site LTAR	0.3	0.3

OTHER FACTORS (.1946): Provisional
SITE CLASSIFICATION (.1948):
EVALUATED BY: L. Thompson
OTHER(S) PRESENT:

LICENSED SOIL SCIENTIST — LARRY S. THOMPSON — 1287 — STATE OF NORTH CAROLINA

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

PROPERTY ID #: 7303536944.000

DATE OF EVALUATION: 3-9-22

COUNTY: Iredell

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 5%	0-3	GR / SL	FRI NS/SS MM-P	—	40	—	—	R 0.3
		3-46	BR C	FI SL P VFR P					

LEGEND

use the following standard abbreviations

LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL .1955 LTAR*	LPP .1957 LTAR*	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope) CV (Convex Slope) D (Drainage Way) DS (Debris Slump) FP (Flood Plain) FS (Foot Slope) H (Head Slope) L (Linear Slope) N (Nose Slope) R (Ridge) S (Shoulder Slope) T (Terrace)	I	S (Sand) LS (Loamy Sand)	1.2 - 0.8	0.6 - 0.4	SEXP (Slightly Expansive) EXP (Expansive)	G (Single Grain) M (Massive) CR (Crumb) GR (Granular) SBK (Subangular Blocky) ABK (Angular Blocky) PL (Platy) PR (Prismatic)
	II	SL (Sandy Loam) L (Loam)	0.8 - 0.6	0.4 - 0.3		
	III	Si (Silt) SiCL (Silty Clay Loam) CL (Clay Loam) SCL (Sandy Clay Loam) SiL (Silt Loam)	0.6 - 0.3	0.3 - 0.15		
					MOIST	**WET**
	IV	SC (Sandy Clay) SiC (Silty Clay) C (Clay)	0.4 - 0.1	0.2 - 0.05	VFR (Very Friable) FR (Friable) FI (Firm) VFI (Very Firm v. Very Sticky)	NS (Non-sticky) SS (Slightly Sticky) S (Sticky) VS (Very Sticky)
		O (Organic)	None	None	EFI (Extremely Firm)	NP (Non-plastic) SP (Slightly Plastic) P (Plastic) VP (Very Plastic)

*Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

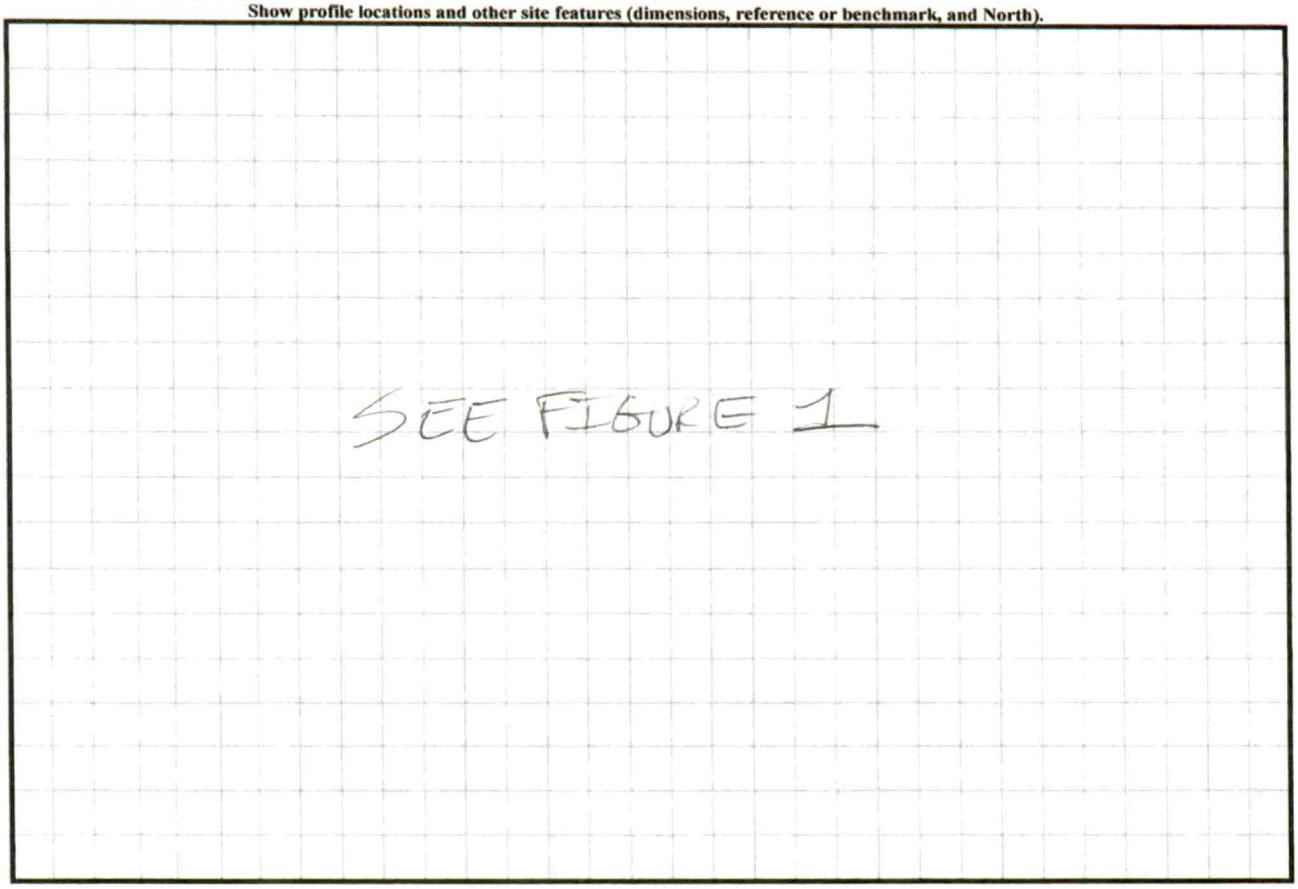
NOTES

HORIZON DEPTH	In inches below natural soil surface
DEPTH OF FILL	In inches from land surface
RESTRICTIVE HORIZON	Thickness and depth from land surface
SAPROLITE	S(suitable) or U(unsuitable)
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft^2

Show profile locations and other site features (dimensions, reference or benchmark, and North).



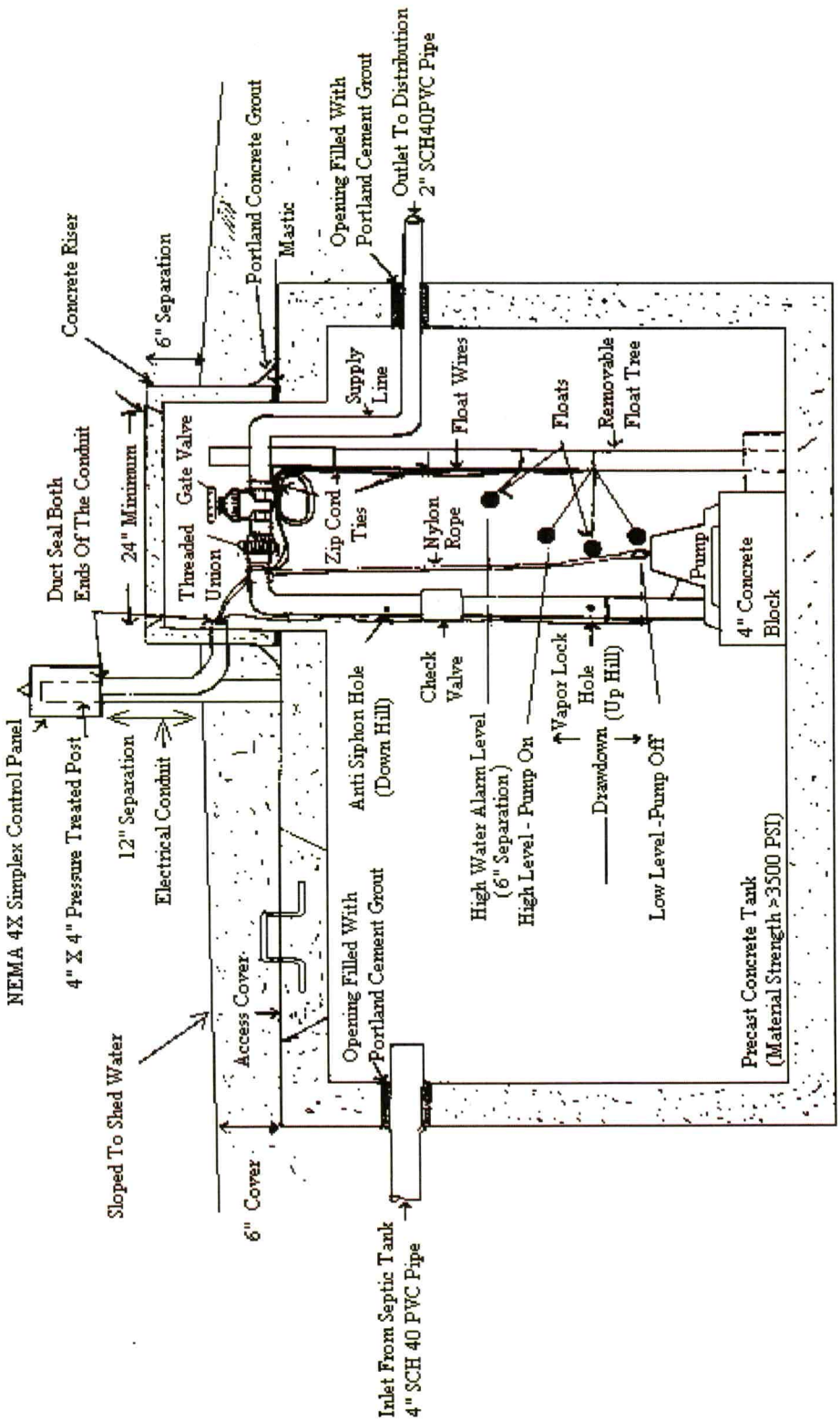
Thompson Environmental Consulting, Inc
PO Box 541
Midland, NC 28107-0541

Tax ID Number: 4730363694.000

Location: 106 Rushing Water Lane

Date: December 7, 2022

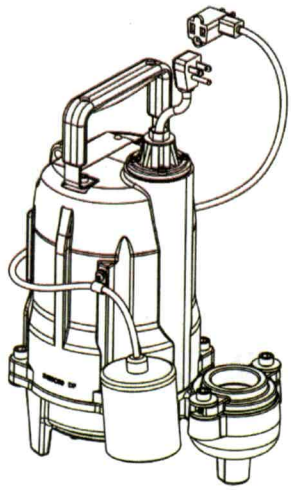
Recommended Pump Tank Design

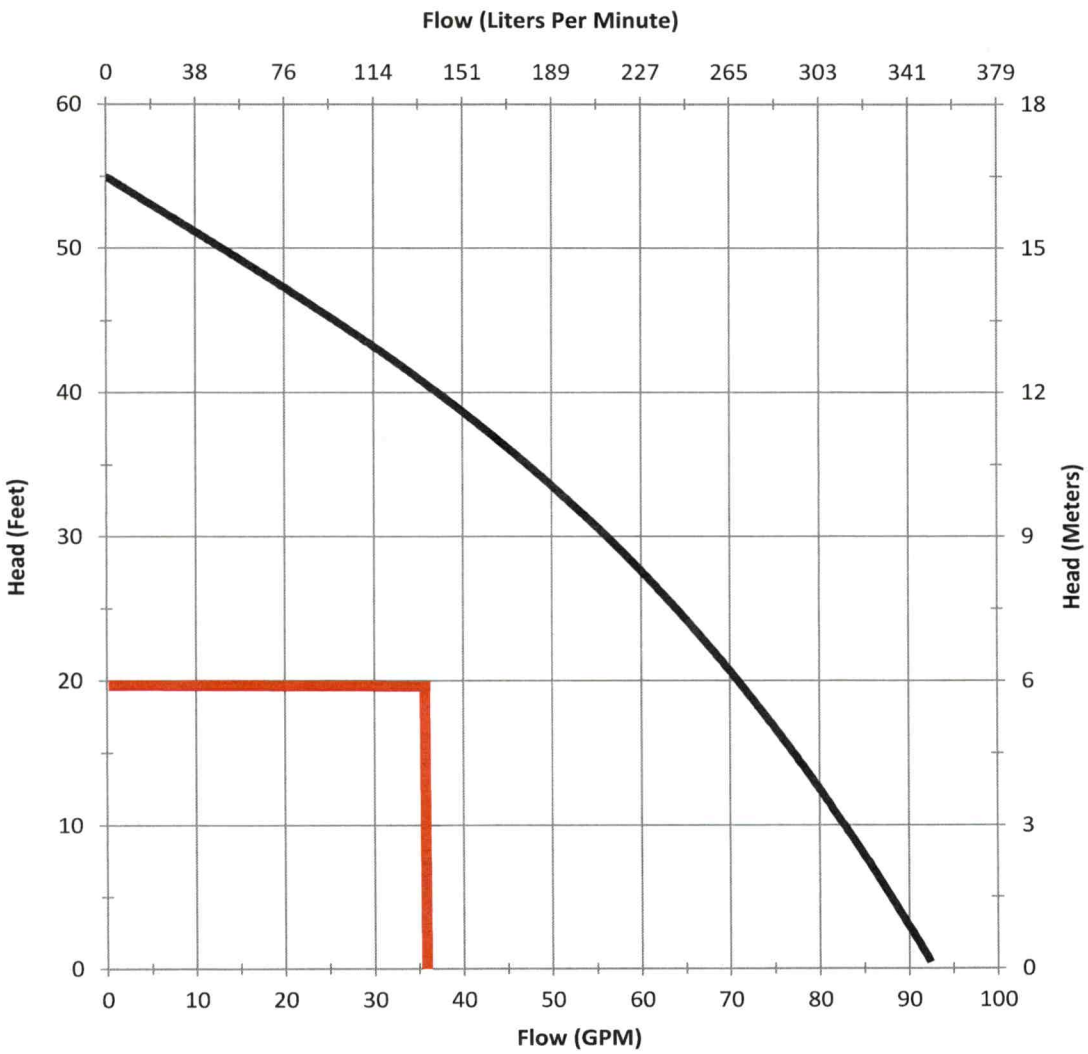


Liberty Pumps®

Pump Specifications

FL50 Series 1/2 hp Submersible Effluent Pump

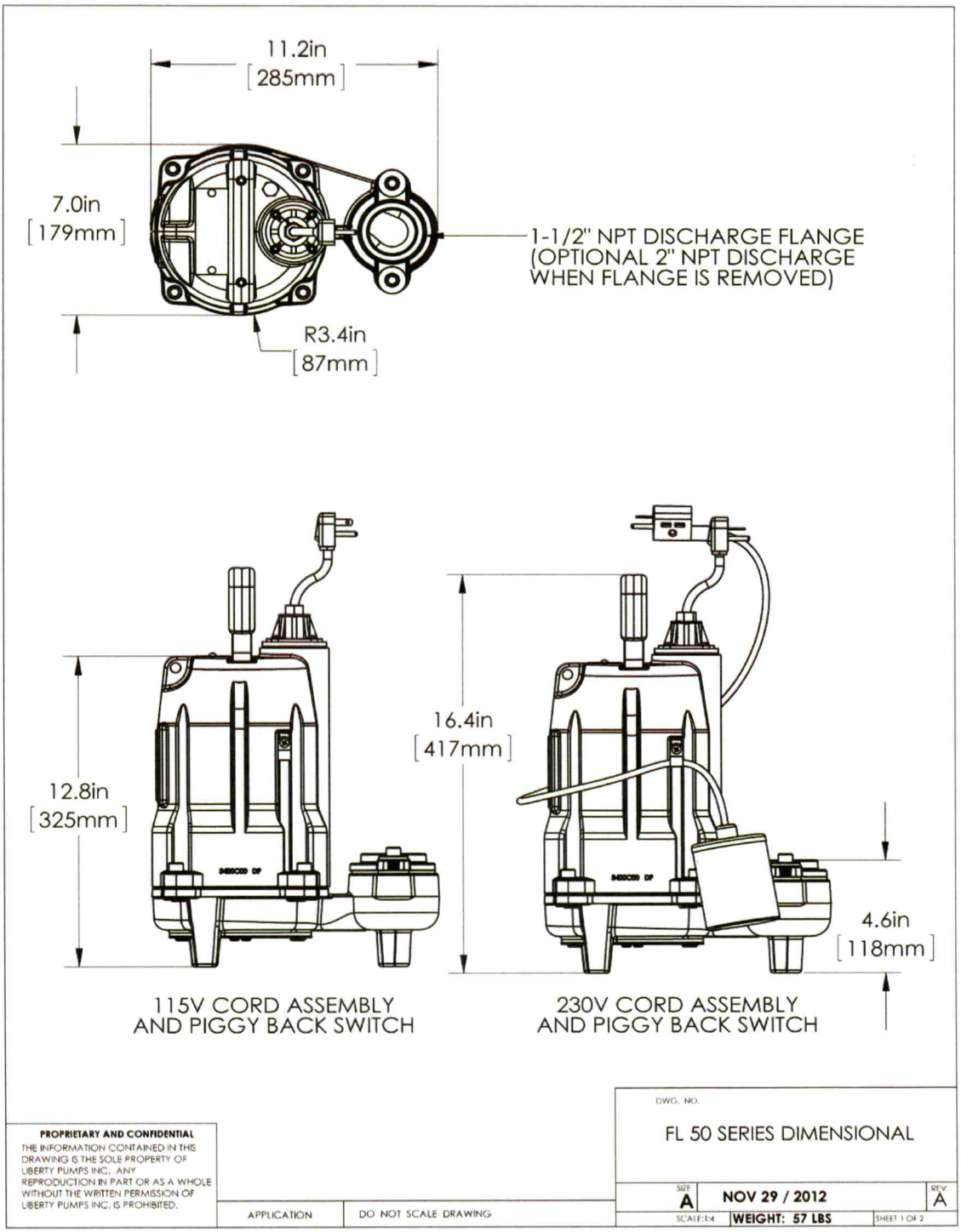




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Liberty Pumps

FL50-Series Dimensional Data



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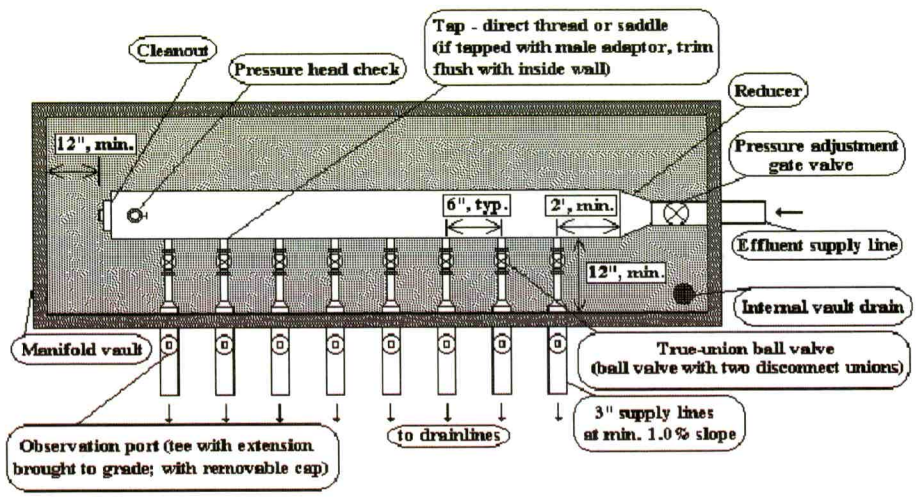
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541

Tax ID Number: 4730363694.000

Location: 106 Rushing Water Lane

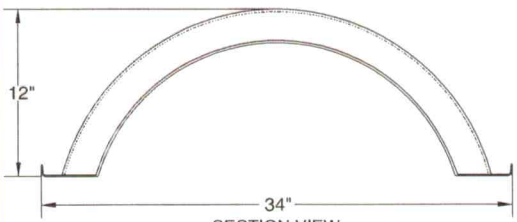
Date: December 7, 2022

Recommended Pressure Manifold Design
(Number of Taps May Vary)

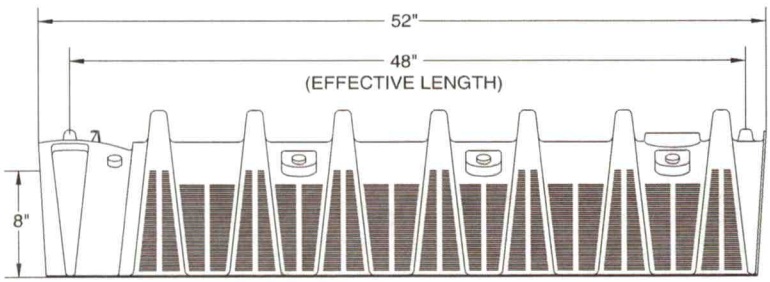


Quick4™
STANDARD CHAMBER

Quick4 Standard Chamber

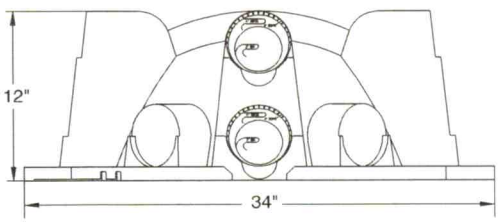


SECTION VIEW

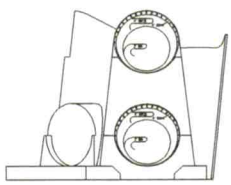


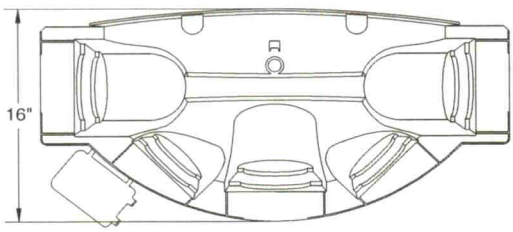
SIDE VIEW

MultiPort End Cap



FRONT VIEW


SIDE VIEW



TOP VIEW

Quick4 Standard Chamber Nominal Specifications

Size (W x L x H)	34" x 52" x 12"
Effective Length	48"
Invert Height	8"

MultiPort End Cap Nominal Specifications

Size (W x L x H)	34" x 16" x 12"
Invert Height	8" or 1.25"

INFILTRATOR SYSTEMS, INC. STANDARD LIMITED WARRANTY

(a) The structural integrity of each chamber, end plate, wedge and other accessory manufactured by Infiltrator ("Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty.

Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

* * * * * * *

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.

INFILTRATOR® SYSTEMS INC

Environmental Onsite Wastewater Solutions℠

6 Business Park Road • P.O. Box 768
Old Saybrook, CT 06475
860-577-7000 • FAX 860-577-7001

800-221-4436

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844
Canadian Patents: 1,329,959; 2,004,564 Other patents pending.

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