

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

OPERATIONS PERMIT

PERMIT # WRP-019958-2019

APPLICATION DATE: 06/07/2019

BLDG. PERMIT#: 0182200

PIN: 1820624348

RECORDED: Yes

TOWNSHIP: 14 - New Light

JURISDICTION: Wake County

ZONING: R-80W

APPLICANT: BACKYARD OASIS POOLS
KAREN FIORINI
4154 Shearon Farms AVE

BUSINESS PHONE: (919) 556-7227

HOME PHONE:

MOBILE PHONE: (919) 796-7060

HD USE: 811 ES SITE EVALUATION

EXISTING USE: 101A CONVENTIONAL ONE-FAMILY HOUSE

SITE ADDRESS: 2104 ROLLING ROCK RD

SUBDIVISION: WAKEFIELD SUB PH1

LOT: 24

ACRES: 3.83

DIRECTIONS:

Systems defined as either type III-b, III-g with a pump, IV, V or VI, in accordance with the North Carolina administrative code 15A NCAC 18a .1961, table V as adopted by reference in the "Regulations Governing Wastewater Treatment Dispersal Systems in Wake County", requires Wake County Environmental Services to conduct periodic inspections of the system type pursuant to 15A NCAC 18a. 1961 (j). Fees for these inspections will be charged as per the approved Fee Schedule. In addition, all systems are to be operated and maintained as specified in 15A NCAC 18A .1961. This permit is based in part on information provided by the homeowner and/or his/her representative in the application submitted for this permit. The Environmental Health Specialist is not responsible for false or misleading information contained in the application. The environmental health specialist is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him/her in the application. Neither Wake County nor the Environmental Health Specialist warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

OPERATION PERMIT VALID FOR: No Expiration

INSTALLED BY:

PROPRIETARY SYSTEM:

PRETREATMENT SYSTEM:

SYSTEM TYPE INSTALLED: II A

OPERATION PERMIT: STATUS: Issued

ISSUED BY: Justin Milstein

ISSUED DATE: 03/25/2026

SEPTIC TANK:

DATE OF MANUFACTURE:

FILTER:

GREASE TRAP:

DATE OF MANUFACTURE:

FILTER:

DOSING PUMP TANK:

DATE OF MANUFACTURE:

FILTER:

CC1: ETM1:

CC2:

ETM2:

RECIRCULATION TANK:

DATE OF MANUFACTURE:

CC1: ETM1:

CC2:

ETM2:

SEPTIC TANK ELEVATION:

GREASE TRAP ELEVATION:

DOSING PUMP TANK ELEVATION:

RECIRCULATION TANK ELEVATION:

DISTRIBUTION DEVICE ELEVATION:

INSTALLED TRENCH DEPTH	INSTALLED AGGREGATE DEPTH	INSTALLED TRENCH LENGTH	INSTALLED TRENCH BOTTOM ELEVATION

ACTUAL PRESSURE HEAD:

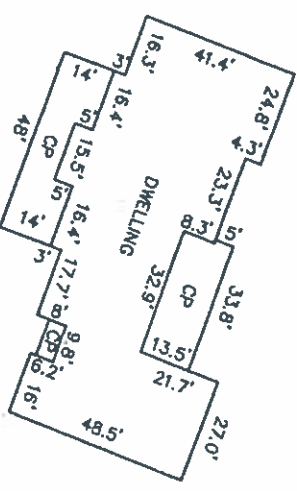
ACTUAL FLOW RATE: 0

ACTUAL DOSE VOLUME: 0

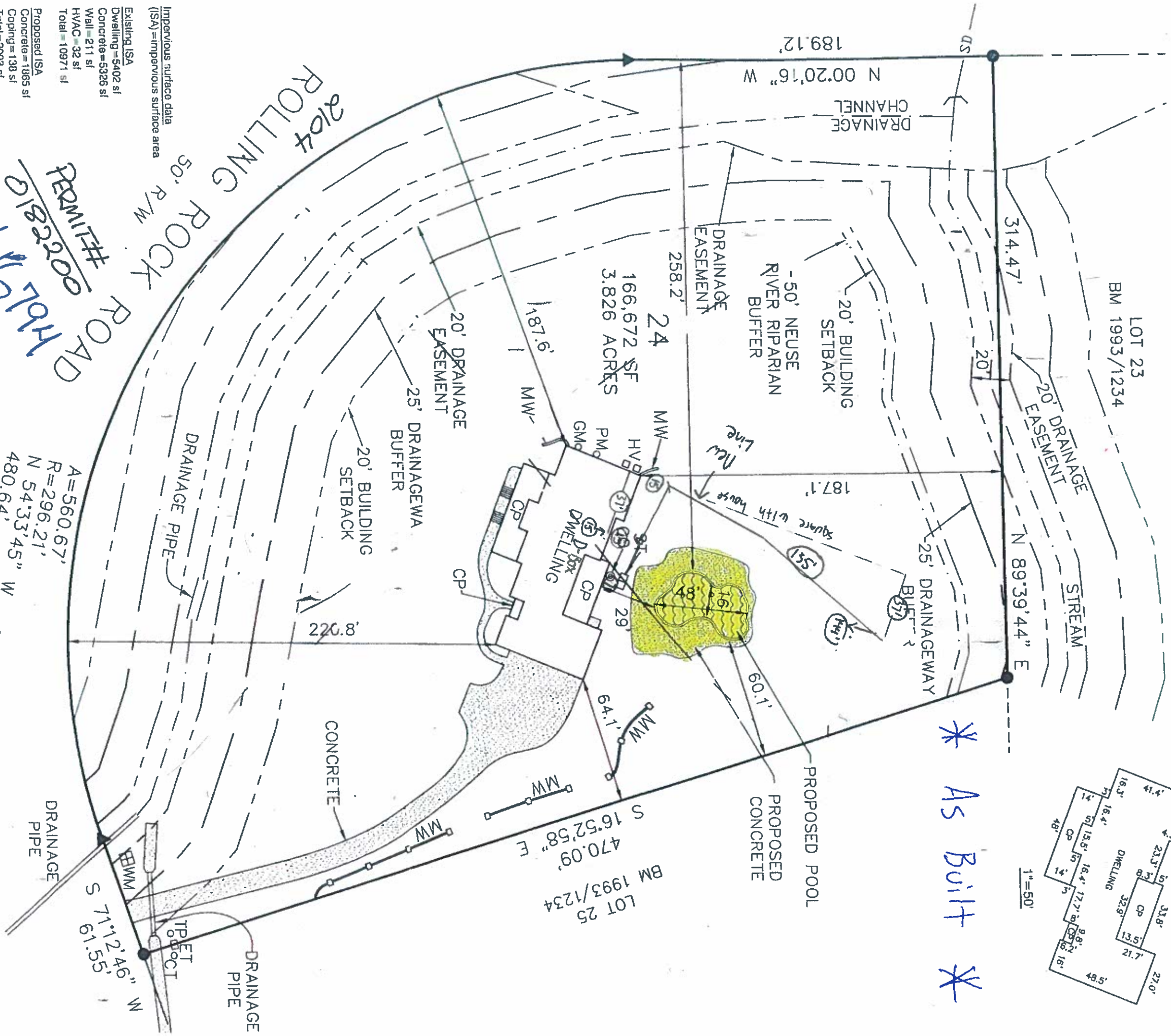
SPECIFIC OPERATION REQUIREMENTS:

ISSUED BY: 

DATE: 03/25/2026



* As Built *



Existing ISA
Dwelling = 5402 sf
Concrete = 5326 sf
Wall = 211 sf
HVAC = 32 sf
Total = 10971 sf

Proposed ISA
Concrete = 1865 sf
Coping = 138 sf
Total = 2003 sf

New Total ISA = 12974 sf
7.78% of lot area

Septic System Note:
Septic system location shall be verified prior to construction. Proper separation shall be maintained between septic system utilities and new construction.



Legend (unless noted otherwise)	
1/2" Pipe Found	Electrical Transformer ET
#5 Rebar Set	Telephone Pedestal TP
Calculated Point	CP
Electrical Pedestal	EP
Utility Pole	Water Meter WM
Area Light	Property Line
Clean Out	Right of Way Line
Power Meter	Deed Line
Gas Meter	Property Line Tie
Screened Porch	Sanitary Sewer MH
H.V.A.C.	Fire Hydrant
Overhead Utilities	Masonry Wall

Zoning R800 By 021
Approve ✓ Due 1-9-18
Revise Use 439D
Relict MBI
Front 50 Rear 5
Side 5 Corner 50

A = 560.67'
R = 296.21'
N 54°33'45" W
480.64'

I certify that the location of planned or existing structure(s) are accurately shown. I understand failure to locate structures in accordance with this plot plan may require the relocation of structure(s) regardless degree of completion. I hereby grant permission to Municipal/County Representatives the right of entry to make evaluations or inspections upon this property.

Wade H. H. H.
Signature of Owner or Authorized Agent

Date: December 12, 2017

Parcel Data
Address: 2104 Rolling Rock Road
Wake Forest, NC 27587

Subdivision: Wakefield
Lot: 24 Phase: 1
Deed Book: 16455/2678
Township: New Light
County: Wake State: N.C.
Real Estate ID: 0200652
PIN: 1820624348

Preliminary Site Plan for:

Thomas M. Peterson

Puckett Surveyors, PLLC
Professional Land Surveyors

Firm License No. (P-1168)
1555 N.C. 56 Suite 2
Creechmoor, N.C. 27522
P. 919 528.9900

Register of Deeds

Tammy L. Brunner
Wake County, NC

03/13/2026 02:28:08 PM

B: 020169 P: 02188 Pages: 14

Recording Fee: \$26.00

DOCUMENT # 2026027094



ALTERNATIVE SEWAGE DISPOSAL SYSTEM MAINTENANCE SCHEDULE

To Be Recorded In The Register Of Deed's Office In Wake County.

Owner/Grantor Stacy Peterson Deedbook and Page _____
PIN No. 1820624348 Date Installed 08/27/2019
Subdivision Name Wakefield Lot No. 24 Phase 1
System Designed by CCSC: Central Carolina Soil Consulting, PLLC Installer unknown

AN ALTERNATIVE OR NON-TRADITIONAL SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ON THIS PROPERTY. The design specifications and locations for alternative sewage disposal systems are specified or authorized in Regulations Governing Wastewater Treatment and Dispersal in Wake County effective November 21, 1988, amended effective October 27, 2011.

As A Condition Of Issuance Of This Improvements/Operation Permit, The Property Owner Hereby Grants The Wake County Department Of Environmental Services A Right Of Access To The System During Regular Working Hours For Purposes Of Monitoring Compliance With State And Local Regulations, Recorded Maintenance Agreements And Certified Operator Compliance.

This permit requires the use of pre-treatment and a mode of subsurface wastewater dispersal for the repair system, which will require a contract with a Certified Operator to perform maintenance on the system as described in the above referenced regulations. Due to this requirement, the initial system must be inspected by a certified inspector or operator at a frequency of at least once every five years and a report submitted. Experience and study have shown that pre-treatment systems require routine maintenance in order to function satisfactorily. In as much as each system must be individually designed and sited, special maintenance requirements may apply to a specific installation; however, the following maintenance schedule is applicable to all pre-treatment systems. For additional information, technical assistance or if a malfunction of the system occurs, contact the Wake County Department of Environmental Services, Telephone: (919) 856-7400.

System Component	Frequency	Maintenance
1. Septic Tank	6-12 months	Check riser condition (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation.
	1-3 years	Pump seepage.
2. Pump/Dosing Tank	6-12 months	Check riser conditions (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Pump sludge accumulation as required and when septic tank is pumped. Check pump(s), controls, floats, electrical connections, and alarm for proper operation. Wash (hose) sludge accumulation from pump housing.
3. Supply lines	6-12 months	Check for settling, pipe exposure and leakage. Includes Manifold(s).
4. Drain Field(s)	1-4 weeks	Maintain vegetative cover (mow grass and remove weeds and brush).
	6-12 months	Check for settling, erosion and surfacing of effluent. Repair any broken lateral turn-ups and make certain they are accessible from ground surface and are filled with screw-on type caps. Check and reset pressure head and flush sludge from lateral lines (any discharge sludge and effluent is to be treated with a chlorine solution). Check site drainage, eliminate low or settled areas and divert surface or shallow groundwater movement around fields.
5. General	At all times	Prohibit vehicular or equipment traffic on ground absorption field. Prohibit tillage (gardening) or other soil disturbance over ground absorption field. Practice water conservation to reduce waste water load on system. Do not permit entry or grease and non-domestic waste to system. Use of a garbage disposal is prohibited. Addition of chemical or biological additives has <u>not</u> been demonstrated to be necessary to maintain proper system function. Prevention of root intervention on lateral lines and trenches may be necessary on certain sites. Surface and groundwater diversion structures must be maintained.
6. Pre-Treatment	6-12 months	Check for settling, erosion and surfacing of effluent. Perform all other inspections and sampling as required in the approval of the pre-treatment device.

Initial system must be inspected by a certified inspector or operator at a frequency of at least once every five years and a report submitted. GAYLEN HACKEMAACK is the life of the system, once repair system is installed.

Notary Public
Wake Co., North Carolina
My Commission Expires Feb. 27, 2029

Stacy Peterson
Signature of Property Owner
3-6-2026
Date

NORTH CAROLINA Wake County, I, a Notary Public of the County and State aforesaid, certify that Stacy Peterson Owner, Personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 6 day of March 20 26.

My commission expires Feb 27, 2029 Notary Public Gaylen Hackemaack
WWDS 1/29/16



TEL 919 856 7400
FAX 919 856 7407

Environmental Services

Water Quality Division
336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602

July 9, 2019

REQUIREMENTS TO COMPLETE YOUR WASTEWATER SYSTEM

NAME: Backyard Oasis Pools
ADDRESS: 4154 Shearon Farms Avenue, Wake Forest, NC 27587
Re: Gravity Initial & TS-II Pretreated Drip Repair Wastewater System
SEPTIC PERMIT: WRP-019958-2019
PIN: 1820 62 4348
Building Permit: 0182200
Property Description: WAKEFIELD SD PHASE 1 LOT 24, 3.83 AC
Dear Sir/Madam:

Enclosed is your approved wastewater system installation plan and the "Alternative Sewage Disposal System Maintenance Schedule".

To complete your permit:

- A contractor **CERTIFIED** by the State of North Carolina and **REGISTERED** in Wake county, must be used to install your system.
- **Alternative Sewage Disposal System Maintenance Schedule** – this document must be signed, notarized and recorded at the Wake County Register of Deeds Office. A copy of the recorded document must be submitted to Wake County before your permit can be finalized.
- A copy of the "Wake County Well and Septic System Owner's Guide", which contain information essential to the long-term performance of this wastewater disposal system, must be forwarded to the owner or user of the system, if other than yourself.

NOTE: IF YOU HAVE A PRIVATE WELL, ALL WELL INSPECTIONS, AND REQUIRED WATER SAMPLES MUST BE COMPLETED BEFORE YOUR PERMIT IS FINALIZED.

ANY PROPOSED MODIFICATION TO THE APPROVED PLANS MUST BE COORDINATED WITH YOUR SYSTEM DESIGNER

Please call (919) 210-1734 or email at justin.milstein@wakegov.com if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin M. Milstein".

Justin M. Milstein, LSS, REHS
Environmental Consultant

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN
AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

***PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR
INTENDED USE CHANGED***

CONSTRUCTION AUTHORIZATION PERMIT**PERMIT # WRP-019958-2019****APPLICATION DATE:** 06/07/2019**BLDG. PERMIT#:** 0182200**PIN:** 1820624348**RECORDED:** Yes**TOWNSHIP:** 14 - New Light**JURISDICTION:** Wake County**ZONING:** R-80W

APPLICANT: BACKYARD OASIS POOLS
4154 Shearon Farms AVE
Wake Forest, NC 27587

BUSINESS PHONE: (919) 556-7227**HOME PHONE:****MOBILE PHONE:** (919) 796-7060**HD USE:** 811 ES SITE EVALUATION**EXISTING USE:** 101A CONVENTIONAL ONE-FAMILY HOUSE**SITE ADDRESS:** 2104 ROLLING ROCK RD**SUBDIVISION:** WAKEFIELD SUB PH1**LOT:** 24**ACRES:** 3.83**DIRECTIONS:**

Contractors shall install system on contour. See attached SITE PLAN for wastewater system design and well location. No underground utilities, water lines or sprinklers systems may be located in the original system, or permit areas. A septic tank filter with two risers for access is required. The wastewater system shall not be covered or placed into use until inspected by the Wake County Department of Environmental Services and Operations Permit issued. An Accepted Status System may be used in place of conventional system, if it can be placed in the permitted/authorized trench footprint (except reduction in line length and/or number as allowed for in approval) and the installation in accordance with the accepted system approval, without unauthorized product alteration. If permit required use of an Accepted Status System, substitution with another accepted status system may be made, as long as no changes are necessary in the location of each nitrifications line (including any increase in line length), trench depth or effluent distribution method. If changes are necessary, prior approval by this office is required before system installation. Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

CONSTRUCTION AUTHORIZATION PERMIT VALID FOR: Five Years**CONSTRUCTION AUTHORIZATION PERMIT: CA STATUS:** Issued**BY:** Justin Milstein**DATE:** 07/09/2019**CA VALID FOR:** Five Years**DESIGN FLOW:** 480 GALLONS**BASEMENT:** No**BASEMENT FIXTURES:** No**SEPTIC TANK:** 1200 GALLONS**SEPTIC TANK FILTER:** Yes**DOSING PUMP TANK:****DOSING PUMP TANK FILTER:****GREASE TRAP:****GREASE TRAP FILTER:****RECIRCULATION PUMP TANK:****RECIRCULATION PUMP TANK FILTER:****PROPOSED SYSTEM:** 0.25 - 25% Reduction (Innovative or Accepted)**EXISTING SYSTEM:** Yes**DRAINFIELD SQ. FT:** 1,215**AGGREGATE DEPTH:** 12**MAX. TRENCH DEPTH:** 20 INCHES**DISTRIBUTION DEVICE:** GP - Gravity Parallel**TRENCH #:** 3**TRENCH LENGTH:** 135 FEET**TRENCH WIDTH:** 36 INCHES**TOTAL TRENCH LENGTH:** 405 FEET**CENTER SPACING:** 9 FEET**MINIMUM SOIL COVER:** 6 INCHES**PRETREATMENT:****APPROVAL #:**

SUBFIELDS #: 1

PUMP TDH:

PUMP DESIGN FLOW:

ZONE VALVE: No

ASDMS REQUIRED: Yes

LINE OF CREDIT REQUIRED: No

OPERATOR REQUIRED: No

P.E. SIGN OFF/ASBUILT REQUIRED: No

TRIPARTY AGREEMENT REQUIRED: No

SPECIFIC CONSTRUCTION AUTHORIZATION REQUIREMENTS:

Accepted status system reduction has been taken for the design of the initial system. Permit is to accommodate for a swimming pool addition. Initial system is gravity-parallel distribution, utilizing existing lines labeled 2 & 3 with the addition of new line labeled 4 to be installed. Line 4 will be a 135' drainline to be installed with a maximum 20" trench bottom. Existing line 1 is to be properly abandoned and removed from the distribution device. Repair system is a TS-II pretreated drip system with 6" trench bottom. Sufficient space should be left available to accommodate future tankage and pretreatment module needed for the repair system. When installing system, please maintain all required setbacks. Do not disturb or remove any soil either system area. Must maintain required emergency storage in pump tank. This system is designed by a consultant & must be installed per the design, including the use of the materials specified in the design. Any deviation must be approved by the consultant & Wake County ES prior to system installation. ALTERNATIVE SEWAGE DISPOSAL SYSTEM MAINTENANCE SCHEDULE must be signed, notarized and recorded at the Wake County Register of Deeds Office prior to issuance of the operation permit. Please contact Environmental Services if any questions or problems arise.

Issued By:



Date: 07/09/2019

HOMEOWNER GUIDE FOR UTILIZATION AND MAINTENANCE OF ON-SITE WASTEWATER DISPOSAL SYSTEMS

What is an On-site Wastewater Disposal System?

There are a number of different types of on-site wastewater disposal systems each designed for a specific set of site conditions. However, there are several system components that are common to most systems. These include the following:

1. A septic tank - a concrete tank that is designed to receive wastewater from the house and to provide a degree of pretreatment for the waste, chiefly through removal of some of the solids in the waste. Note that these solids accumulate over time and necessitate periodic pumping of the septic tank. Currently septic tanks are equipped with two access risers (normally constructed of concrete), which are designed to be at least 6 inches above the ground surface to prevent surface and shallow groundwater from entering the septic tank and to provide access for maintenance. **Care must be taken not to damage or cover these risers so that water inflow / infiltration can be prevented and the tank can be accessed for maintenance.**
2. In some installations, a pump tank - a concrete tank, very similar to the septic tank, which contains a pump along with the associated controls / componentry. The pump tank and pump is designed to receive effluent from the septic tank, and pump the effluent to a disposal field located at a higher elevation and/or to a pressurized distribution network in the disposal field. **The pump tank also has an access riser which must be protected in a similar manner to that indicated for the septic tank.** Servicing of the pump tank components often necessitates the assistance of a professional such as a septic tank installer or Certified Subsurface System Operator. The latter is required for operation and maintenance of certain types of systems.
3. A disposal field - a series of subsurface trenches and lines that are designed to distribute the effluent into the soil and provide for the ultimate treatment and disposal of the effluent. There are numerous variations on the design of the disposal field, related chiefly to the type of system chosen, site constraints, etc. Dependent on the type of disposal system, you may have to maintain a contract with a Certified Subsurface System Operator for operation and maintenance of your wastewater disposal system.

Utilization of Your Wastewater Disposal System

In order to obtain the maximum efficiency and life expectancy from your system, the following simple procedures must be adhered to:

1. **Practice water conservation.** This can include many practical considerations such as not leaving the water running while you brush your teeth, not overfilling the tub, limiting time in the shower, not replacing low flow fixtures with those of higher flows, over rinsing dishes (allow the dishwasher to do its job), immediate repair of any leaking fixtures, running washing machines and dishwashers only when full, etc.

NOTE: Washing machines generate significant volumes of wastewater. As a result, laundry activities should be spread over the week as opposed to accumulating all of laundry until the weekend.

2. **Do not utilize your wastewater disposal system as a trash can by dumping nondegradables down your drains or toilet.** These include cigarette butts, sanitary products, grease, plastics, disposable diapers, etc. Avoid use of garbage disposals. Do not retrofit garbage disposals unless the system is specifically permitted for their use. Also, do not dump harmful chemicals down the drain. These include petroleum products, paint, paint thinner, pesticides, antifreeze, etc.

Maintenance of Your Wastewater Disposal System

Every wastewater disposal system requires maintenance in order to function properly. The specific maintenance required is related to the type of system. The following are general considerations that apply to all systems.

1. **Protect your wastewater disposal system components including the tanks, access risers, disposal field and associated components.** Do not drive or park on any portion of the system. The area over the disposal field should be left undisturbed with the grass cover being maintained as you would your lawn. Location of trees and shrubs on or in close proximity to the disposal field is not recommended since roots may clog or damage your drain lines. Additionally, great care must be exercised when considering the addition of any structure(s) to the site. The location of any appurtenances cannot encroach on the installation or repair areas for your system. It is not recommended that irrigation systems be located in proximity to the disposal system since their construction can cause system damage and/or result in additional hydraulic load on the disposal field.
2. **Protect the system from excess surface and shallow groundwater.** The land surface on and around the wastewater disposal system should be landscaped to shed rainfall and runoff and prevent ponding. Be sure that foundation drains, runoff from roofs and drives, etc. are diverted away from the disposal system.
3. **Regularly have the septic tank / pump tank pumped and cleaned by a permitted septage hauler.** Although the necessary frequency of pumping varies with the household and system, most tanks need **pumping at a frequency of 3-5 years** and at any time solids occupy one-fourth to one-third of the septic tank liquid depth.

Note that all septic tanks being currently installed incorporate an effluent filter within the outlet compartment of the septic tank. This filter is to be cleaned anytime the septic tank is pumped. If plumbing becomes sluggish, this filter should be checked. If filter service is found to be necessary, the tank is to be pumped, the filter cleaned and the filter reinstalled.

4. **Be alert to warning signs that your system may not be functioning properly.**
These include sewage surfacing over the disposal system, sewage backups / slow draining in the house, lush growth over the disposal system, sewage odors, etc.
5. **Do not make or allow repairs to your system unless all necessary permits are obtained from Wake County Department of Environmental Services.**
6. **Commercial additives for septic tank systems** - It has generally not been demonstrated that these additives enhance the function of septic systems or reduce the need for tank pumping and other necessary maintenance.
7. **Special maintenance considerations** - As already alluded to, some of the more complex wastewater disposal systems require that you retain / maintain the services of a Certified Wastewater System Operator in order to comply with Laws and Rules and maintain a valid operation permit for your system. In Wake County this maintenance requirement should be recorded with Register of Deeds if applicable.

Where Do I Obtain Information and Assistance?

If you are purchasing a new home, you should request a copy of your wastewater system permit from the builder / seller along with information regarding any special maintenance requirements. You may also obtain information and assistance from the **Wake County Department of Environmental Services**, 336 Fayetteville Street Mall, Raleigh, NC, Telephone (919) 856-7400. The County also maintains an Internet web site at <http://www.wakegov.com/environment/Pages/default.aspx>. This site contains much useful information and a number of links.

BSM 7/18/18

ALTERNATIVE SEWAGE DISPOSAL SYSTEM MAINTENANCE SCHEDULE

To Be Recorded In The Register Of Deed’s Office In Wake County.

Owner/Grantor

Deedbook and Page

PIN No.

Date Installed

Subdivision Name

Lot No.

System Designed by

Installer

AN ALTERNATIVE OR NON-TRADITIONAL SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ON THIS PROPERTY. The design specifications and locations for alternative sewage disposal systems are specified or authorized in Regulations Governing Wastewater Treatment and Dispersal in Wake County effective November 21, 1988, amended effective October 27, 2011. As A Condition Of Issuance Of This Improvements/Operation Permit, The Property Owner Hereby Grants The Wake County Department Of Environmental Services A Right Of Access To The System During Regular Working Hours For Purposes Of Monitoring Compliance With State And Local Regulations, Recorded Maintenance Agreements And Certified Operator Compliance. This permit requires the use of **pre-treatment and a mode of subsurface wastewater dispersal for the repair system**, which will require a contract with a Certified Operator to perform maintenance on the system as described in the above referenced regulations. **Due to this requirement, the initial system must be inspected by a certified inspector or operator at a frequency of at least once every five years and a report submitted.** Experience and study have shown that pre-treatment systems require routine maintenance in order to function satisfactorily. In as much as each system must be individually designed and sited, special maintenance requirements may apply to a specific installation; however, the following maintenance schedule is applicable to all pre-treatment systems. For additional information, technical assistance or if a malfunction of the system occurs, contact the Wake County Department of Environmental Services, Telephone: (919) 856-7400.

<u>System Component</u>	<u>Frequency</u>	<u>Maintenance</u>
1. Septic Tank	6-12 months	Check riser condition (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation.
2. Pump/Dosing Tank	1-3 years	Pump septage.
	6-12 months	Check riser conditions (must be accessible from ground surface),excess in/exfiltration, entry of water at riser, and solids accumulation. Pump sludge accumulation as required and when septic tank is pumped. Check pump(s), controls, floats, electrical connections, and alarm for proper operation. Wash (hose) sludge accumulation from pump housing.
3. Supply lines	6-12 months	Check for settling, pipe exposure and leakage. Includes Manifold(s).
4. Drain Field(s)	1-4 weeks	Maintain vegetative cover (mow grass and remove weeds and brush).
	6-12 months	Check for settling, erosion and surfacing of effluent. Repair any broken lateral turn-ups and make certain they are accessible from ground surface and are filled with screw-on type caps. Check and reset pressure head and flush sludge from lateral lines (any discharge sludge and effluent is to be treated with a chlorine solution). Check site drainage, eliminate low or settled areas and divert surface or shallow groundwater movement around fields.
5. General	At all times	Prohibit vehicular or equipment traffic on ground absorption field. Prohibit tillage (gardening) or other soil disturbance over ground absorption field. Practice water conservation to reduce waste water load on system. Do no permit entry or grease and non-domestic waste to system. Use of a garbage disposal is <u>prohibited</u> . Addition of chemical or biological additives has <u>not</u> been demonstrated to be necessary to maintain proper system function. Prevention of root intervention on lateral lines and trenches may be necessary on certain sites. Surface and groundwater diversion structures must be maintained.
6. Pre-Treatment	6-12 months	Check for settling, erosion and surfacing of effluent. Perform all other inspections and sampling as required in the approval of the pre-treatment device.

Initial system must be inspected by a certified inspector or operator at a frequency of at least once every five years and a report submitted. A certified operator is required for the life of the system, **once repair system is installed.**

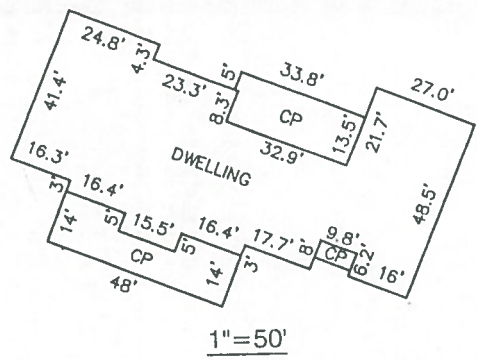
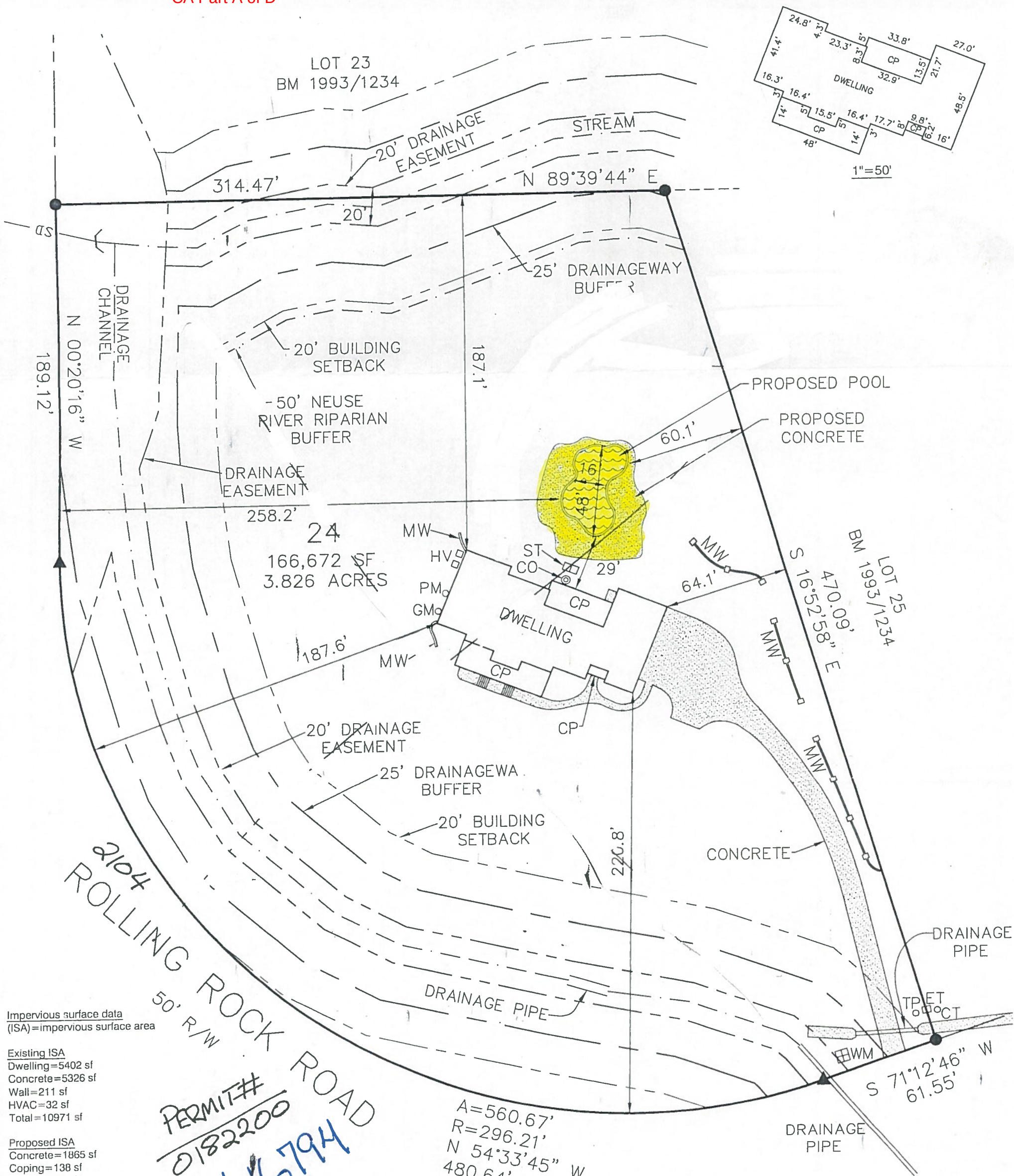
Signature of Property Owner

Date

NORTH CAROLINA _____ County. I, a Notary Public of the County and State aforesaid, certify that _____ Owner, Personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this ____ day of _____ 20____.

My commission expires _____

Notary Public _____



Impervious surface data
(ISA)=impervious surface area

Existing ISA
Dwelling=5402 sf
Concrete=5326 sf
Wall=211 sf
HVAC=32 sf
Total=10971 sf

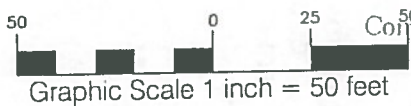
Proposed ISA
Concrete=1865 sf
Coping=138 sf
Total=2003 sf

New Total ISA=12974 sf
7.78% of lot area

Septic System Note:
Septic system location shall be
verified prior to construction.
Proper separation shall be maintained
between septic system utilities
and new construction.

PERMIT#
0182200
W-16794

Zoning R800 By OLF
Approve ✓ Date 1-9-18
Revise ✓ Use 439D
Reject ✓ MBL ✓
Front 50 Rear 5
Side 5 Corner 50



Legend (unless noted otherwise)

1/2" Pipe Found	●	Electrical Transformer	ET
#5 Rebar Set	○	Telephone Pedestal	TP
Calculated Point	▲	Covered Porch	CP
Electrical Pedestal	EP	Cable T.V. Pedestal	CT
Utility Pole	○	Water Meter	WM
Area Light	○	Property Line	---
Clean Out	CO	Right of Way Line	---
Power Meter	PM	Deed Line	---
Gas Meter	GM	Property Line Tie	---
Screened Porch	SP	Sanitary Sewer MH	⊙
H.V.A.C.	HV	Fire Hydrant	⊙
Overhead Utilities	OHU	Masonry Wall	---

Date: December 12, 2017
Parcel Data
Address: 2104 Rolling Rock Road
Wake Forest, NC 27587

Subdivision: Wakefield
Lot: 24 Phase: 1
Book of Maps: 1993/1234
Deed Book: 16455/2678
Township: New Light
County: Wake State: N.C.
Real Estate ID: 0200652
PIN: 1820624348

Preliminary Site Plan for:

Thomas M. Peterson

Puckett Surveyors, PLLC
Professional Land Surveyors

Firm License No. (P-1168)

1555 N.C. 56 Suite 2

Creedmoor, N.C. 27522

P. 919.528.8900

File: 17185



LINE SCHEDULE REPAIR

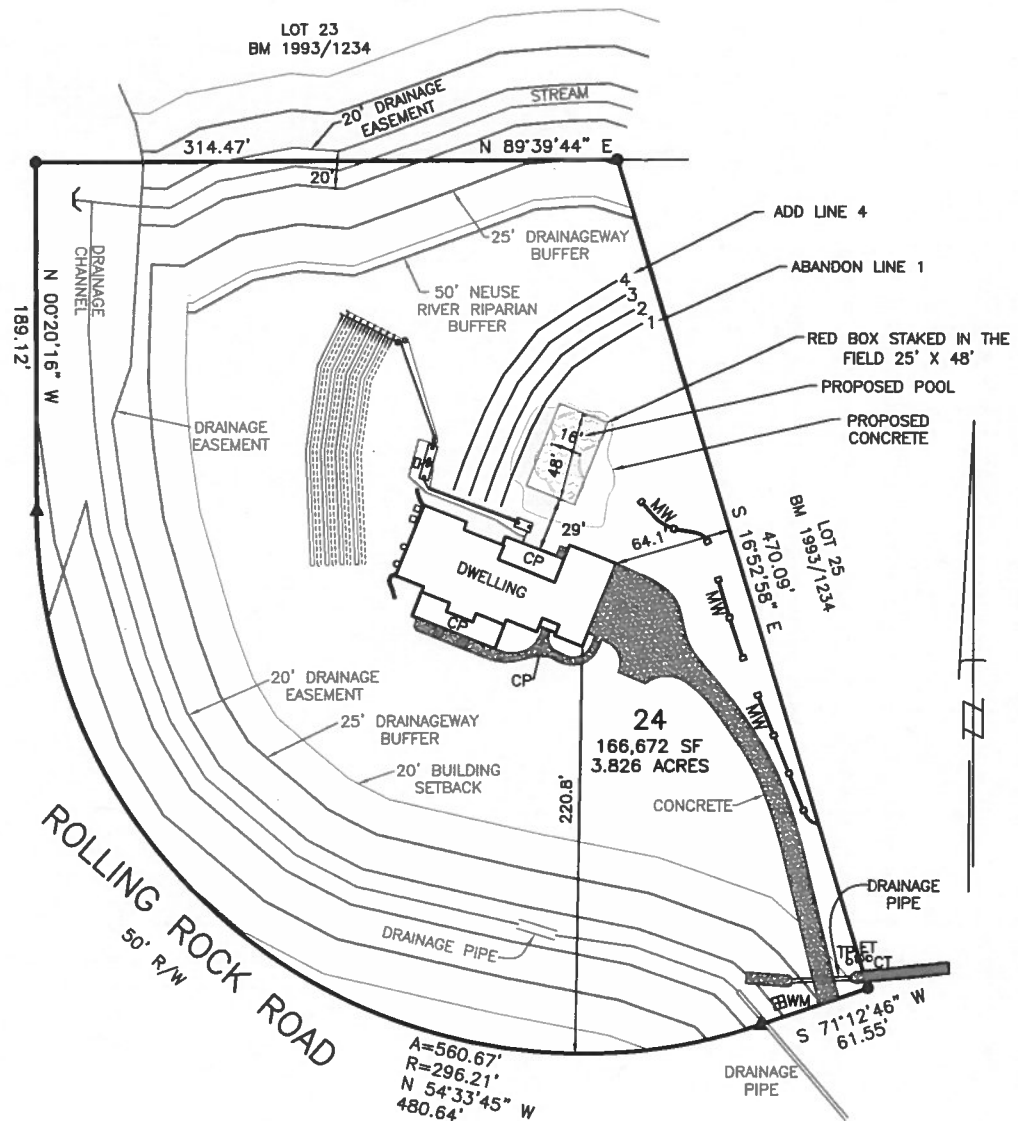
FIELD LAYOUT LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH	DESIGN LENGTH AND LINE NUMBER
			100	
			100	(1) 200
7		10.3	100	
			100	(2) 200
			100	
			100	(3) 200
			100	
12	GREEN	12.6	100	(4) 200
			100	
			100	(5) 200
			100	
			100	(6) 200
17		14.5	100	(7) 200
			100	
			100	(8) 200

LOT 24 WAKEFIELD S/D

4-BEDROOM ACCEPTED GRAVITY SYSTEM
LINES 2-4
EZFLOW
LTAR 0.3

4-BEDROOM PRETREATED DRIP REPAIR
LINES 5-20
AREA REQUIRED 3,200 SF (1,600 LF)
LTAR 0.15

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION



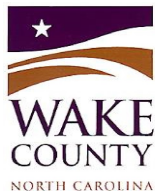
0 50 100
SCALE:
1" = 100 ft.



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, North Carolina 27587
Phone (919)569-6704 Fax (919)569-6703

SEPTIC REPAIR LAYOUT
Lot 24 Wakefield Subdivision
Wake Forest, Wake County
North Carolina

Job# : 2901
Drawn By : TMB
Date : 05/08/2018
Revision:



Environmental Services

TEL 919 856 7400
FAX 919 856 7407

Water Quality Division

336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602

Innovative Product Owner Authorization of Use Certification

D#: WRP-019958-2019
Building Permit # 0182200
Address: 2104 Rolling Rock Rd
PIN: 1820624348

I, **Tom Peterson** hereby request the innovative wastewater advanced treatment unit marked below to be used in my wastewater treatment and dispersal system for my property located at the above address and PIN number, and permitted under the above Wake County Wastewater System Permit number. The level of treatment is also marked below. Any additional Innovative Products needed for this project will have their own Authorization of Use filled out independently.

DocuSigned by:

Thomas M. Peterson

7/2/2019

Owner Signature

Date

<u>Generic Name</u>	<u>Proprietary Name</u>	<u>Innovative Approval #</u>
☐ Anua	Puraflo Peat Biofilter System	IWWS-98-1-R3
☐ Bioclere	Bioclere Modified trickling Filter System	IWWS-2002-1-R1
☐ E-Z Treat 1200	E-Z Treat Model 1200 Pretreatment System	IWWS-2014-R3
☒ E-Z Treat 600	E-Z Treat Model 600 Pretreatment System	IWWS-2015-03-R2
☐ Norweco	Norweco Singulair ATU/Sand Filter	IWWS-99-3
☐ Bio-Kinetic	Norweco Bio-Kinetic System	IWWS-2000-1
☐ AdvanTex RT	AdvanTex AX-RT Treatment System (Models AX20-RT and AX25-RT)	IWWS-2015-01-R1
☐ AdvanTex	Advantex Treatment Systems (AX20 and AX100)	IWWS-2004-3-R4
☐ Ecoflo	Ecoflo Peat Biofilter System	IWWS -2000-3-R4
☐ Sand Filter	Pressure Dosed Sand Filter Pretreatment System	IWWS-97-1

Treatment Level: ☐ NSF40
☐ TS-I
☒ TS-II
☐ Reuse

Review of this document has been made only for conformance with the design concept of the project and approval shall not relieve the designer and/or contractor from responsibility for any errors therein or for furnishing the materials, and equipment of proper dimension, size, quantity, quality and all performance characteristics to meet the requirements and intent of the contract documents.

E-Z Set Drip Field Calculations

Job Description	Lot 24 Wakefield
Contact	Tom Peterson
Prepared by	Matt Burdette
Date	8-May-19

Please fill in the shaded areas and drop down menus:

This spreadsheet serves as a guide, and is not a complete hydraulic design.

Worksheet 1- Field Flow

Total field

Total Quantity of effluent to be disposed per day	480	gallons / day
Hydraulic loading rate	0.15	gallons / sq ft / day
Total Dispersal Field Area	3,200	square ft

Flow per zone

Number of Zones	1	zone(s)
Dispersal area per zone	3,200	square ft
Choose line spacing between drip lines	2	ft
Choose emitter spacing between drip emitters	2	ft
Total linear ft per zone (minimum required)	1,600	ft per zone
Total number of emitters per zone	800	emitters per zone
Select Wasteflow dripline (16mm)	Wasteflow PC - 1/2gph	dripline
Pressure at the beginning of the dripfield	30	psi
Feet of Head at the beginning of the dripfield	69.3	ft
What is the flow rate per emitter in gph?	0.53	gph
Dose flow per zone	7.07	gpm

Note: A few States or Counties require additional flow for flushing. Please check your local regulations. Flush velocity in this spreadsheet below is for PC dripline only. Classic dripline usually requires higher velocity. Please refer to Geoflow's spreadsheet called "Design Flow and Flush Curves" at www.geoflow.co

If required, choose flush velocity	1.2	ft/sec
How many lines of dripline per zone?	8	lines
Fill in the actual length of longest dripline lateral	200	ft
Max. allowable length of a single drip line	535	ft
Flush flow required at the end of each dripline	0.89	gpm
Total Flow required to achieve flushing velocity	7.10	gpm
Total Flow per zone- worst case scenario	14.17	gpm

Select Filters and zone valves

Select pipe diameters for manifolds and submains	1.25	inch
Select Filter Type	Vortex Screen Filter	
Recommended Filter (item no.)	AP4E-1.5	
Select Zone Valve Type	None	
Recommended Zone Valve (item no.)	0	

Check below to choose quantity and length of daily doses

Dosing

Number of doses per day / zone:	12	doses
Timer ON. Pump run time per dose/zone:	5.40	mins secs
Timer OFF. Pump off time between doses	1.54	hrs. mins
Per Zone - Pump run time per day/zone:	1.07	hrs. mins
All Zones - Number of doses per day / all zones	12	doses / day
All Zones - Pump run time per day/ all zones:	1.07	hrs. mins

E-Z Set Drip Pump Calculations

Job Description:	Lot 24 Wakefield
Contact:	Tom Peterson
Prepared by:	Matt Burdette
Date:	5/8/2019

Please fill in the shaded areas and drop down menus:

This spreadsheet serves as a guide, and is not a complete hydraulic design.

Pressure losses may be grossly overstated, particularly if designing with Non PC dripline.

The letters on the diagram(right) match the letters in section 2 below.

Worksheet - Pump Sizing

Section 1 - Summary from Worksheet 1

Flow required to dose field	7.07 gpm
Flow required to flush field	7.10 gpm
Flow required to dose & flush field	14.17 gpm
Filter	AP4E-1.5
No. of Zones	1 zones
Zone valve	-
Dripline	Wasteflow PC - 1/2gph
Dripline longest lateral	200 ft

Section 2	Ft of head	Pressure
A. Flush line - Losses from end of dripline to tank		
Return header pipe size	1.25 inch	
Pressure loss in 100 ft of pipe	3.07 ft.	1.33 psi
Distance from furthest dripline end back to tank	100 ft.	
Equivalent length of fittings	25 ft.	57.75
Elevation increase or decrease	8.5 ft.	
Total pressure loss from end of dripline to return tank	12.3 ft.	5.34 psi
B. Dripline - Losses through Wasteflow dripline		
Fill in the length of longest dripline lateral	200 ft.	
Minimum pressure required at end of dripline	23.10 ft.	10.00 psi
Loss through dripline during flushing	2.59 ft.	1.12 psi
Total minimum required dripline pressure	25.69 ft.	11.12 psi
A+B. Minimum Pressure required at beginning of dripline		
CALCULATED pressure required at beginning of dripline	38.03 ft.	16.46 psi
SPECIFIED pressure at beginning of dripline (from worksht 1)	69.3 ft.	30.00 psi
Great! SPECIFIED Pressure is greater than CALCULATED Pressure requirement. Go to next step		
C. Drip components - Losses through components		
Filter	4.62 ft.	2.00 psi
Zone valve (not in diagram)	- ft.	- psi
Flow meter (not in diagram)	- ft.	- psi
Other	- ft.	psi
Total loss through drip components	4.62 ft.	2.00 psi
D. Supply line - Minimum Pressure head required to get from pump tank to top of dripline		
Supply Header Pipe Size from Worksheet 1	1.25 inch	
Pressure loss/gain in 100 ft. of pipe	3.07 ft.	1.33 psi
Distance from pump to furthest dripline	100 ft.	
Equivalent length of fittings	25 ft.	psi
Height from pump to tank outlet	5 ft.	psi
Elevation increase or decrease	-8.5 ft.	(3.68) psi
Total gain or loss from pump to field	0.3 ft.	0.15 psi
Total dynamic head	74.3 ft.	32.15 psi
Pump capacity *	14.2 gpm	

* Note: Pump capacity flow assumes flow in dripline does not change during a dose cycle. With Non PC drip For more accurate flows please contact E-Z Set

If you need assistance designing for this additional flow, please

-Contact E-Z Set @ 703-408-2916

LINE SCHEDULE REPAIR

FIELD LAYOUT LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH	DESIGN LENGTH AND LINE NUMBER
			100	(1) 200
7		10.3	100	(2) 200
			100	(3) 200
			100	(4) 200
12	GREEN	12.6	100	(5) 200
			100	(6) 200
17		14.5	100	(7) 200
			100	(8) 200

LOT 24 WAKEFIELD S/D

4-BEDROOM ACCEPTED GRAVITY SYSTEM

LINES 2-4
EZFLOW
LTAR 0.3

4-BEDROOM PRETREATED DRIP REPAIR

LINES 5-20
AREA REQUIRED 3,200 SF (1,600 LF)
LTAR 0.15

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION



SCALE:
1" = 100 ft.



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, North Carolina 27587
Phone (919)569-6704 Fax (919)569-6703

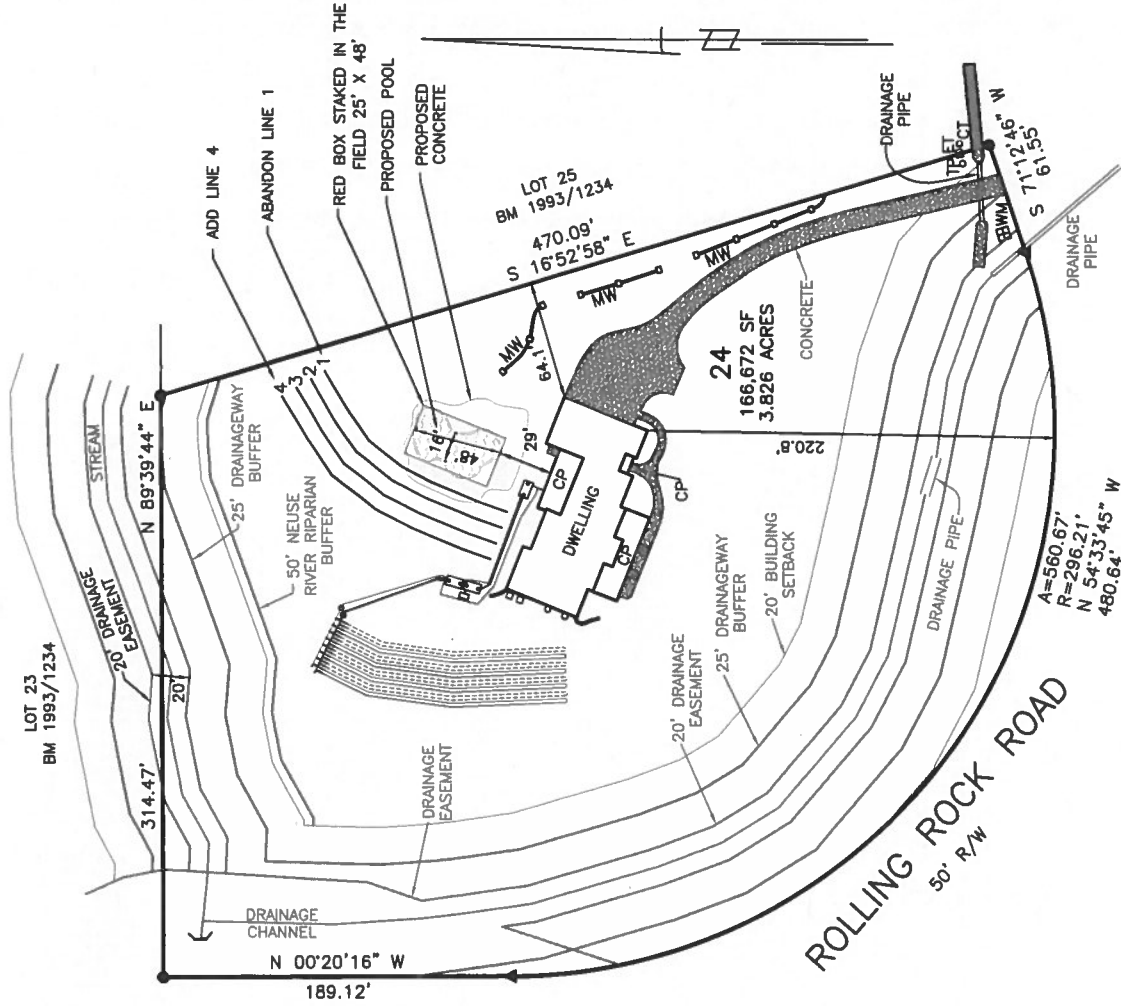
SEPTIC REPAIR LAYOUT
Lot 24 Wakefield Subdivision
Wake Forest, Wake County
North Carolina

Job# : 2901

Drawn By : TMB

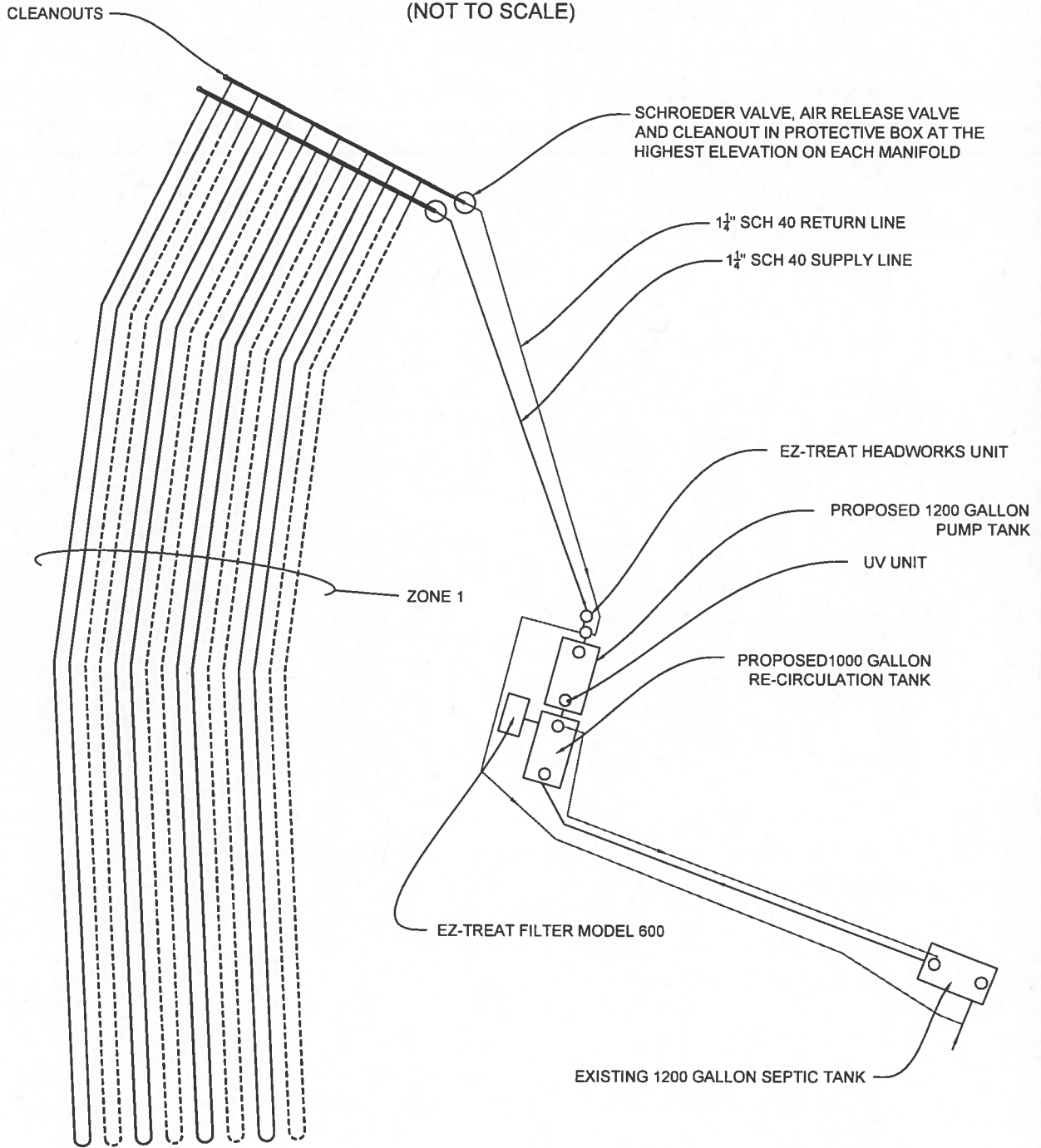
Date : 05/08/2018

Revision:



DRIP SYSTEM DETAIL

(NOT TO SCALE)



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, North Carolina 27587
Phone (919)569-6704 Fax (919)569-6703

DRIP SYSTEM DETAIL
Lot 24 Wakefield Subdivision
Wake County, North Carolina

Job# : 2901
Drawn By : TMB
Date : 05/08/2019
Revision: 00/00/0000

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

IMPROVEMENT PERMIT

PERMIT #: WRP-019958-2019

APPLICATION DATE: 06/07/2019

BLDG. PERMIT #: 0182200

PIN: 1820624348

RECORDED: Yes

TOWNSHIP: 14 - New Light

JURISDICTION: Wake County

ZONING: R-80W

APPLICANT: KAREN FIORINI

BUSINESS PHONE: (919) 556-7227

HOME PHONE:

MOBILE PHONE: (919) 796-7060

HD USE: 811 ES SITE EVALUATION

EXISTING USE: 101A CONVENTIONAL ONE-FAMILY HOUSE

SITE ADDRESS: 2104 ROLLING ROCK RD

SUBDIVISION: WAKEFIELD SUB PH1

LOT: 24

ACRES: 3.83

DIRECTIONS:

Permit is subject to revocation if the Site Plan or Plat changes or the intended use changes.

*Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

IP VALID FOR: Five Years AS PER GS 130A-335 (f)

DESIGNED BY: CCSC

SYSTEM LAYOUT: Private Sector

SITE CLASSIFICATION: Provisionally Suitable

IP STATUS: Issued

BY: Scott Reams

DATE: 07/08/2019

NUMBER OF BEDROOMS: 4

OR TOTAL NUMBER OF OCCUPANTS:

PERMITTED DESIGN FLOW: 480 GPD

BASEMENT: No

BASEMENT PLUMBING: No

WASTEWATER STRENGTH: Domestic

SYSTEM TYPE: II A

LTAR: 0.300

EXISTING SYSTEM UTILIZED: Yes

PRETREATMENT STRENGTH REQUIRED: None

EASEMENT FOR WW SYSTEM ASSOCIATED WITH PARCEL: No

MAXIMUM TRENCH DEPTH: 20 INCHES

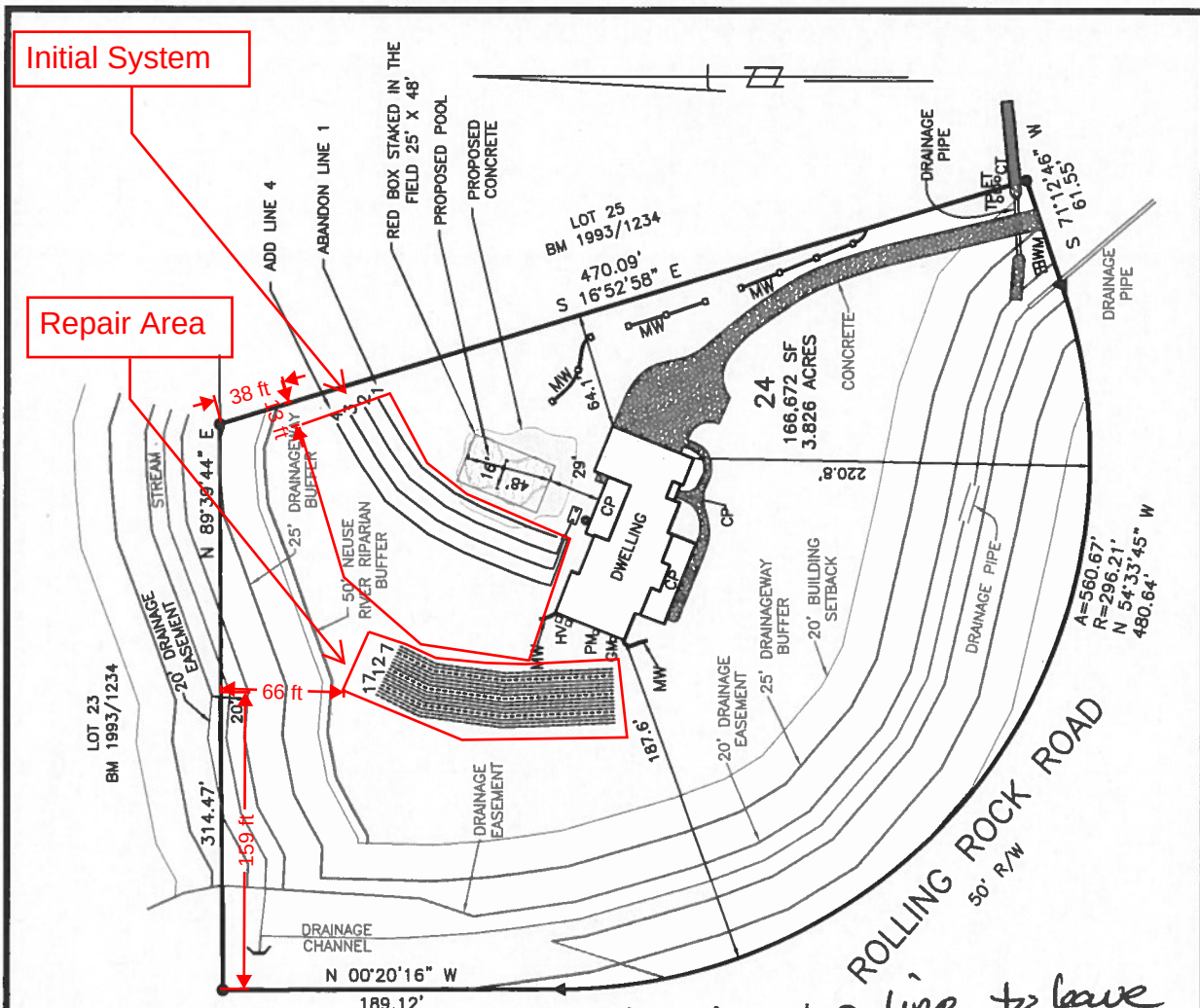
PUMP REQUIRED: No

SPECIFIC SYSTEM REQUIREMENTS: permit issued to modify existing system to leave room for proposed in-ground pool. permit requires to abandon top line of existing system and install new 135' line below drain field, using 20" max trench depth as designated under d015776. repair is proposed as pre-treated drip repair using .15ltar. plans for drip system must be reviewed and approved prior to issuance of ca. proposed repair area requires that a maintenance schedule is recorded at register of deeds and submitted to this office prior to issuance operation permit.

ISSUED BY:

A handwritten signature in blue ink, appearing to read "Scott Allen", is written over a light blue horizontal line.

DATE: 07/08/2019



LINE SCHEDULE SYSTEM			
FIELD LAYOUT LINE NUMBER	COLOR	FIELD ELEVATION	DESIGN LENGTH AND LINE NUMBER
1	EXISTING		134
2	EXISTING		134
3	EXISTING		134
4	PINK	5.3	134
7		10.3	100
12	GREEN	12.6	100
17		14.5	100

- Abandon top line to leave room for proposed pool
- Install new 135' line using accepted status product
- 20" Max trench depth

LOT 24 WAKEFIELD S/D
4-BEDROOM ACCEPTED GRAVITY SYSTEM
LINES 2-4
EZFLOW
LTAR 0.3
4-BEDROOM PRETREATED DRIP REPAIR
LINES 5-20
AREA REQUIRED 3,200 SF (1,600 LF)
LTAR 0.15
FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION
- tie into existing d-box or replace if needed

- Repair Area is proposed as drip system - maintenance schedule is required

Job# : 2901
Drawn By : TMB
Date : 05/08/2018
Revision:

SEPTIC SYSTEM LAYOUT
Lot 24 Wakefield Subdivision
Wake Forest, Wake County
North Carolina

Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, North Carolina 27587
Phone (919)569-6704 Fax (919)569-6703

