FEE: 200.00
DATE: 5/13/2019

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 4260A

PERMIT NUMBER: 30010036

PARCEL NUMBER: 11132136

JOB LOCATION INFORMATION

ADDRESS: 10325 WINDTREE LN

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28215

ISSUED TO: JOHN & RENEE COURAGE

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 10/19/2018

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30010036, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. A PRE-CONSTRUCTION MEETING MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A LICENSED SEPTIC TANK CONTRACTOR WITH THE NORTH CAROLINA ONSITE WASTEWATER CONTRACTOR INSPECTOR CERTIFICATION BOARD.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, AND MAY BE ISSUED AT THE SAME TIME THE IMPROVEMENT PERMIT IS ISSUED.

Authorized Agent Signature Heath Ray

Supervisor/Administrative Professional Checklist

New Septic ☒ New Well ☐ Use Existing ☐ Alteration ☐ Modified Plot Plan ☐

New Septic Fees Paid:

IP ($250.00) LE 2/9/17 Initials/Date

CA ($200.00) LE Initials/Date

OP ($200.00) Initials/Date

(CA and OP fees nee ermit can be issued)

New Well Fee Paid: Initials/Date

Use Existing Fee Paid Initials/Date

Alteration Fee Paid: $300.00 (Total) $200 (If use existing was paid) Initials/Date

Modified Plot Plan Fee Paid: $100.00 AAS 1/27/18 Initials/Date

Floor plans need to be submitted and reviewed before CA can be issued. ☐ Reviewed ☐ JAM 10/19/18

Please generate CA for Appt 10036

This site is served by septic and well. Verify each is complete before final hold is released. ☒

Septic file completed. ☒ JAM 5/13/19 Well file completed. ☐ _____

Send permit for signature. ☑ Signature received. ☑ _____

This septic system requires a certified operator contract before final hold is released. ☒

Certified operator contract is on file. ☒ JAM _____

Groundwater & Wastewater Services: Septic Project File & D

Edit Response | Delete Response | Manage Permissions | Workflows | Alert Me

GWS File #:	4260A
WASPS App #:	8746
Primary ES assigned to project:	April Bumgarner
Secondary ES assigned to project:	
Project Type:	New System
Site Evaluation Information: .1939(a)(1) - Topography and Landscape Position Recorded?	Yes
Site Evaluation Information: .1940(a-g) - Slope % Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Texture Class Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Structure Type Recorded?	Yes
Site Evaluation Information: .1939 (a)(2) - Consistence Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Mineralogy Recorded?	Yes
Site Evaluation Information: .1939(a)(3) - Soil Wetness Condition Recorded?	Yes
Site Evaluation Information: .1939(a)(4) - Soil Depth to Rock or Parent Material Recorded when Encountered?	Yes
Site Evaluation Information: .1939(a)(5) - Depth to Restrictive Horizons Recorded when Encountered?	N/A
Site Evaluation Information: .1939(a)(6) - Sufficient Available Space Recorded?	Yes
Site Evaluation Information: .1937(m) - Are the Profile Locations Shown?	Yes
Site Evaluation Information: .1939(a) - Are the S/PS Profiles in system & in repair area?	Yes
Site Evaluation Information: .1939(d), .1955, .1956, .1957 - LTAR	Yes
Improvement Permit/Construction Authorization: .1937(g), 130A-336(a) - Proposed System Type stated - Initial	Yes
Improvement Permit/Construction Authorization: .1945(b) - Proposed System Type stated - Repair	Yes
Improvement Permit/Construction Authorization: 130A-336(a)(3) - System location identifiable by setbacks - Initial	Yes
Improvement Permit/Construction Authorization: .1937(g), .1945(b) - System components shown - Initial	Yes
Information Permit/Construction Authorization: .1945(b) - Repair area shown	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Does System design match facility, flow & WW characteristics?	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Is System design consistent with soil/site conditions?	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Is the System located in the approved area?	Yes
Improvement Permit/Construction Authorization: 130A-336(a) - Number of Bedrooms, employees, seats, etc. indicated?	Yes
Improvement Permit/Construction Authorization: .1937 (g) - Trench depth correct?	No
Improvement Permit/Construction Authorization: .1937(g) - Trench width correct?	Yes
Improvement Permit/Construction Authorization: .19379(g) - Trench length correct?	Yes
Improvement Permit/Construction Authorization: 130A-336(a)(1) - Proposed/existing well shown?	No

MECKLENBURG COUNTY
HEALTH DEPARTMENT

4260A
#10036

27 NOV '18 AM 10:27

APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. SEPTIC / TYPE APPLICATION: ○ N/A ○ NEW SYSTEM ○ ALTERATION ○ REPAIR ◉ MODIFIED PLOT PLAN

2. WELL / TYPE APPLICATION: ◉ N/A ○ NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. JOB LOCATION INFORMATION:

TAX PARCEL NUMBER: 11132136
STREET ADDRESS: 10325 Windtree Lane
CITY: Charlotte
STATE: NC ZIP: 28205
SUBDIVISION NAME: Northlake
LOT #: 31 LOT SIZE (acres): 1.17

TOWNSHIP:

○ MECKLENBURG ○ CORNELIUS ○ HUNTERSVILLE
○ DAVIDSON ◉ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ○ MINT HILL

4. BUILDING INFORMATION:

BUILDING TYPE:

○ SINGLE MOBILE HOME ○ MODULAR HOME
○ DOUBLE WIDE ○ MULTIPLE FAMILY
◉ HOUSE ○ OTHER _____

HEATED SQUARE FOOTAGE: 5,000
NUMBER OF BEDROOMS: 3
NUMBER OF OCCUPANTS: 6

FOUNDATION TYPE:

○ CONCRETE SLAB ○ BASEMENT WITH PLUMBING
◉ CRAWL SPACE ○ BASEMENT WITH NO PLUMBING

5. IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION: ☑ N/A

NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. WATER SUPPLY: ○ MUNICIPAL ◉ PRIVATE WELL ○ PUBLIC WELL ○ SHARED WELL ○ OTHER _____

7. PROPOSED USE OF WELL: ○ N/A ○ IRRIGATION ◉ POTABLE (DRINKING WATER) ○ OTHER _____

8. PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE *(1-MOST DESIRED 5-LEAST DESIRED)*:

☐ N/A ☑ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

8A. RANK: ____ ____ ____ ____ ____

9. DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.

BURIED CABLES, LANDFILLS, STUMPHOLES	○ YES ◉ NO	GRADING/SOIL REMOVAL PERFORMED	○ YES ◉ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	○ YES ◉ NO	JURISDICTIONAL WETLANDS	○ YES ◉ NO
WELLS, SPRINGS, OR WATER LINES	○ YES ◉ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	○ YES ◉ NO
EASEMENTS OR RIGHT-OF-WAYS	○ YES ◉ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ◉ NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ◉ NO	KNOWN UNDERGROUND CONTAMINATION	○ YES ◉ NO
WASTE STORAGE	○ YES ◉ NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ◉ NO

10. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 2/25/88 ☐ UNKNOWN

11. WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? _____ ☑ N/A

12. PROPERTY OWNER:

NAME: John and Renee Courage
ADDRESS: 10325 Windtree Lane
CITY: Charlotte
STATE: NC ZIP: 28205
WORK PHONE: _____
MOBILE PHONE: _____
FAX: _____
E-MAIL: _____

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Michael Athanas and Associates
ADDRESS: 561 Ennis Road
CITY: Weddington
STATE: NC ZIP: 28173
WORK PHONE: _____
MOBILE PHONE: (704) 576-3887
FAX: _____
E-MAIL: scott@michaelathanas.com

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 704-336-5103, FAX: 704-336-6894

Revised on: 12/15/10

File #: _____

PROPOSED PLOT PLAN

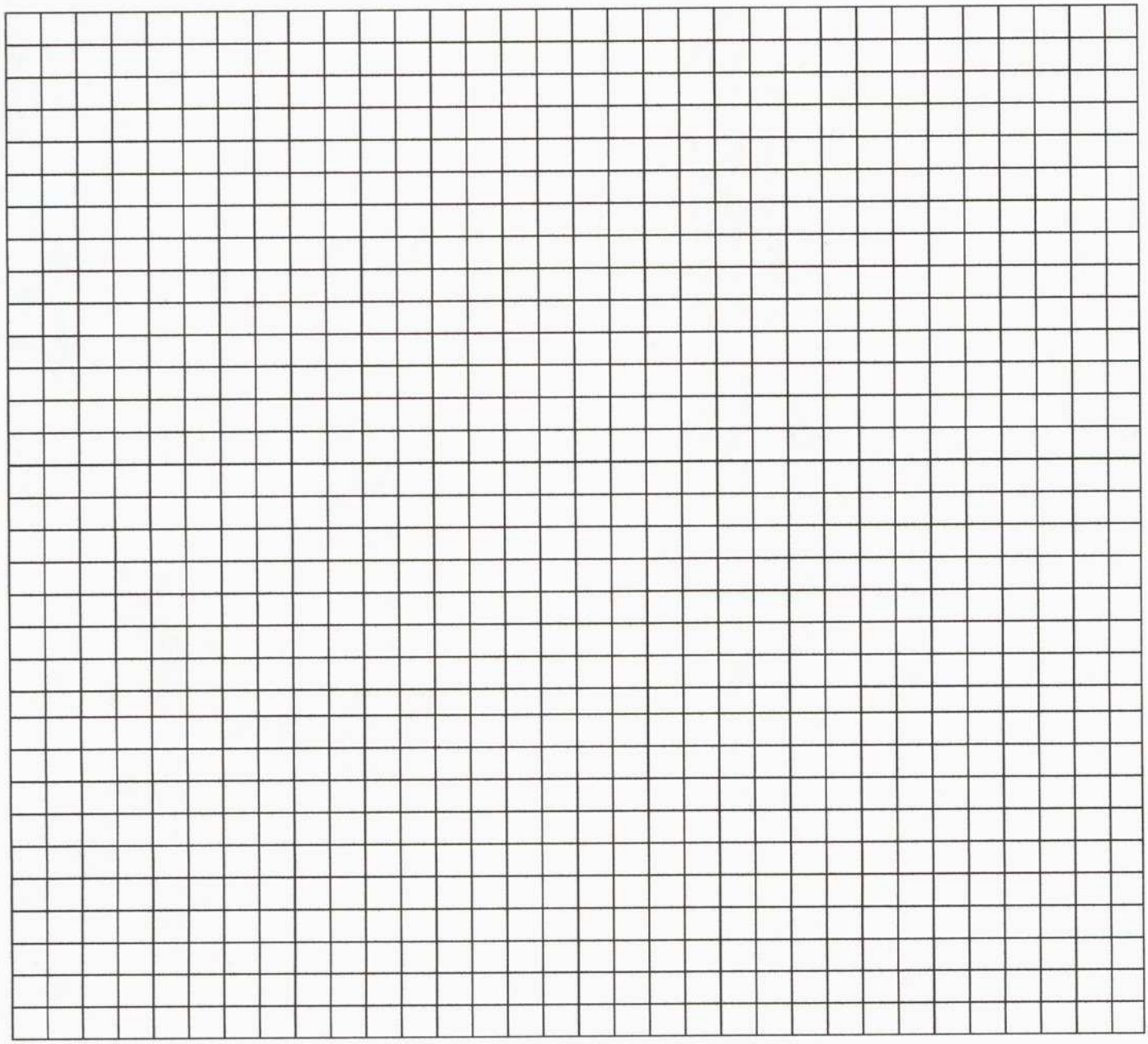
A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 10325 Windtree Lane

Tax Parcel #: 11132136

Subdivision Name: ~~Elizabeth Circle~~ North Lake

Lot #: 31



_____ _____

Property Owner's or Owner's Legal Representative Signature Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 704-336-5103, FAX: 704-336-6894

Revised on: 12/15/10

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

SK _____ (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of twelve (12) months from the date of issuance.

_____ (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

_____ _____

Property Owner's or Owner's Legal Representative Signature Date

---

OFFICE USE ONLY

O SURVEY PLAT TO SCALE SUBMITTED O SCALED SITE PLAN SUBMITTED O UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

WELL APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

_____

_____

_____

_____

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_____

_____

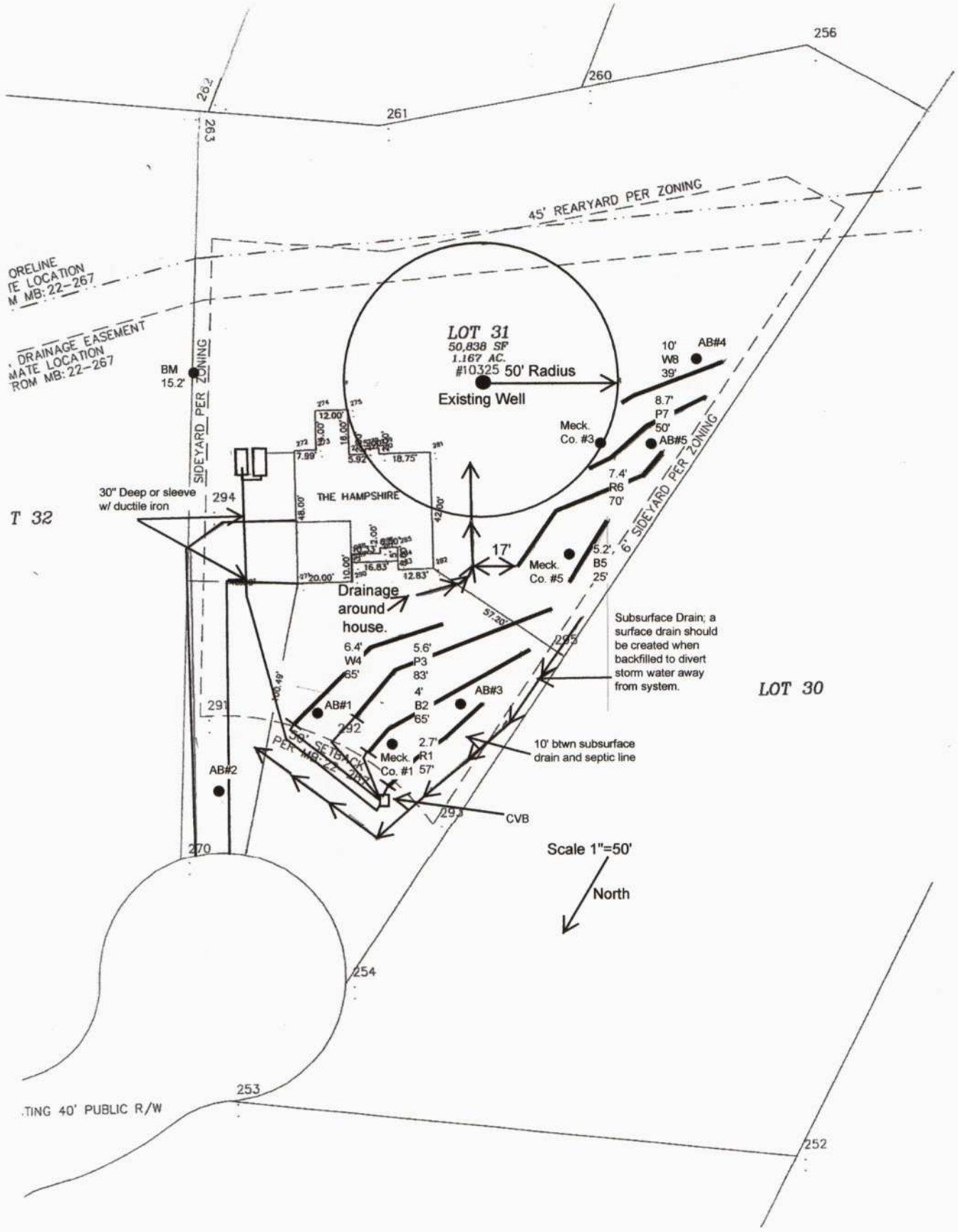
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MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 704-336-5103, FAX: 704-336-6894

Revised on: 12/15/10


LOT 31
50,838 SF
1.167 AC.
#10325 50' Radius
Existing Well
45' REARYARD PER ZONING
SIDEYARD PER ZONING
6' SIDEYARD PER ZONING
BM
15.2'
30" Deep or sleeve
w/ ductile iron
THE HAMPSHIRE
Drainage
around
house.
Subsurface Drain; a
surface drain should
be created when
backfilled to divert
storm water away
from system.
10' btwn subsurface
drain and septic line
CVB
Meck.
Co. #1
Meck.
Co. #3
Meck.
Co. #5
AB#1
AB#2
AB#3
AB#4
AB#5
10'
W8
39'
8.7'
P7
50'
7.4'
R6
70'
5.2'
B5
25'
6.4'
W4
85'
5.6'
P3
83'
4'
B2
65'
2.7'
R1
57'
17'
LOT 30
T 32
Scale 1"=50'
North
256
260
261
263
254
253
252
294
291
292
293
270
TING 40' PUBLIC R/W



MICHAEL ATHANAS & ASSOCIATES
LICENSED SOIL SCIENTIST
561 Ennis Rd.
Weddington, NC 28173
(704) 576-3887

Reference: Data Sheet for Lot 31 Northlake; 10325 Windtree Lane; Parcel ID#: 11132136 Mecklenburg Co., NC

House Footprint: 50'x63'
Building Setback: 50' Front, 5' Side, 45' Rear
Water Source: Private Well
Number of Bedrooms: 3/360 GPD
Proposed LTAR: 0.275 gpd/ft2
Suggested System Type: PPBPS; 36" width with 9' centers
Proposed Repair LTAR: 0.275 gpd/ft2
Suggested Repair System Type: PPBPS
Distribution: LP-CVB; 1.25" laterals
Flow per Orifice: .59
Hole Size & Material: 3/16"
Number of Panels: 51
System Flow: 30.09 gal/min
Dosing Volume: 183.6 gal/dose
Pump Run Time: 6.10 min
Total Linear Footage: 218'
Trench Bottom Square Footage: 654 ft2
Elevation Head: 15.2'
Friction Head: 3.43'
Pressure Head: 2'
Total Dynamic Head: 20.63'
Supply Line Length: 160'; 2" PVC
Septic/Pump Tank Size: 1000 gallon septic tank and 1000 gallon pump tank
Proposed Trench Bottom: 36"
Proposed Repair Trench Bottom: 28"; 6" of cover will be required to be brought in. Class II or III.

Line	Actual Length	Design Length	Repair Length	# of Panels	Elevation
Red 1	**57'**	**55'**		**13**	**2.7'**
Blue 2	**65'**	**65'**		**15**	**4'**
Pink 3	**83'**	**80'**		**18**	**5.6'**
White 4	**65'**	**20'**	40'	**5**	**6.4'**
Blue 5	25'				5.2'
Red 6	70'				7.4'
Pink 7	50'				8.7'
White 8	39'				10'

Initial System: 220' PPBPS **Repair System:** 224' PPBPS
House Corner: 14.5' **Pump Tank:** 12.9'
Bench Mark: 15.2' iron located along property line 96.97' from corner.
CVB: 2.7'
Comments:
The purpose of this evaluation is to permit the property for a 3 bedroom system.

- There should be no cuts greater than 2' within 25' of the system.
- The pressure line should be buried at least 30" deep under the driveway or sleeved in ductile iron.
- The subsurface drain should be installed along the property and no closer than 10' to the ends of the septic lines. See site plan for locations. An additional surface drain should be constructed during back filling to keep storm water from running on to the system.

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 2
Property ID: 111-321-36
Lot #: 31
File #: 4260A
AppID: 8746

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Vanis L. Dillard
Address: 4680 Old Plank Rd., Iron Station, NC 28080
Proposed Facility: 4 Bedroom House
Design Flow (.1949): 480 GPD
Location of Site: 10325 Windtree Ln, Charlotte, NC 28215
Water Supply: [ ] Public [X] Individual [X] Well [ ] Spring [ ] Municipal
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

Applicant: Dimetra (Tula) Kourakos
Date Evaluated: 2/28/2017
Property Size: 1.15 ac
Property Recorded: Unknown

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	General Comments	Profile Class & LTAR	Maximum Trench Bottom Depth for 3' Wide Conventional Trench
Boring #1	LS 6%	0 - 4	sbk CL	SS SP FR SEXP	>53"	53	NA	NA	manganese 30 - 42"	**PS IV 0.275**	**36"**
		4 - 53	sbk C	S P FR SEXP							
Boring #2	LS 6%	0 - 5	sbk CL	SS SP FR SEXP	>50"	50	NA	NA		**PS IV 0.3**	**36"**
		5 - 50	sbk C	S P FR SEXP							
Boring #3	LS 6%	0 - 8	sbk SCL	SS SP FR SEXP	2 chroma at 43"	48	NA	NA	yellow brown mottles 28 - 48"	**PS IV 0.275**	**29"**
		8 - 28	sbk C	S P FR SEXP							
		28 - 48	sbk SC	S P FI SEXP							
Boring #4	LS 5%	0 - 4	sbk CL	SS SP FR SEXP	2 chroma at 45"	50	NA	NA	yellow brown motlles 40 - 50"	**PS IV 0.275**	**31"**
		4 - 26	sbk C	S P FR SEXP							
		26 - 40	sbk SCL	SS SP FR SEXP							
		40 - 50	sbk SC	S P FI SEXP							
Boring #5	LS 9%	0 - 8	sbk CL	SS SP FR SEXP	>50"	50	NA	NA	yellow brown mottles 46 - 50"	**PS IV 0.3**	**36"**
		8 - 50	sbk C	S P FR SEXP							

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IVa	IVa
Site LTAR (gpd/sq ft)	**0.275***	**0.275***

*** Install a curtain drain and surface swell around system.**

Other Factors (.1946): NA
Soil Evaluation By: Jacob Presley, LSS, REHS
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30010036** GWS File #: **4260A** Tax Parcel #: **111-321-36**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 11/28/2023

Type of Installation: Residential - Modified Plot Plan Lot Number: 0

Structure Type: HOUSE Size (ft^2): 5000 # Bedrooms: 3 Max. Occup.: 6

Building Foundation: Crawl Space Water Supply: Private Well

II. Initial System Type: PPBPS (pressurized) **System Classification:** IVa

Initial System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	.275	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	655	Total Trench Length (ft):	218
Maximum Trench Depth (in):	36	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

III. Repair System Type: PPBPS (pressurized) **System Classification:** IVa

Repair System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	.275	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	654	Total Trench Length (ft):	218
Maximum Trench Depth (in):	29	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Heather Ray

Signature: Heather Ray

Date Issued: 11/28/2018

Owner/Legal Agent: J. Scott Kennedy
Print Name

Signature: J. Scott Kennedy

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30010036** GWS File #: **4260A**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- Additional soil cover, as specified on the plot plan, required over the drain field must be inspected and approved prior to issuance of an Operation Permit.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 15 feet from any foundation drain.

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

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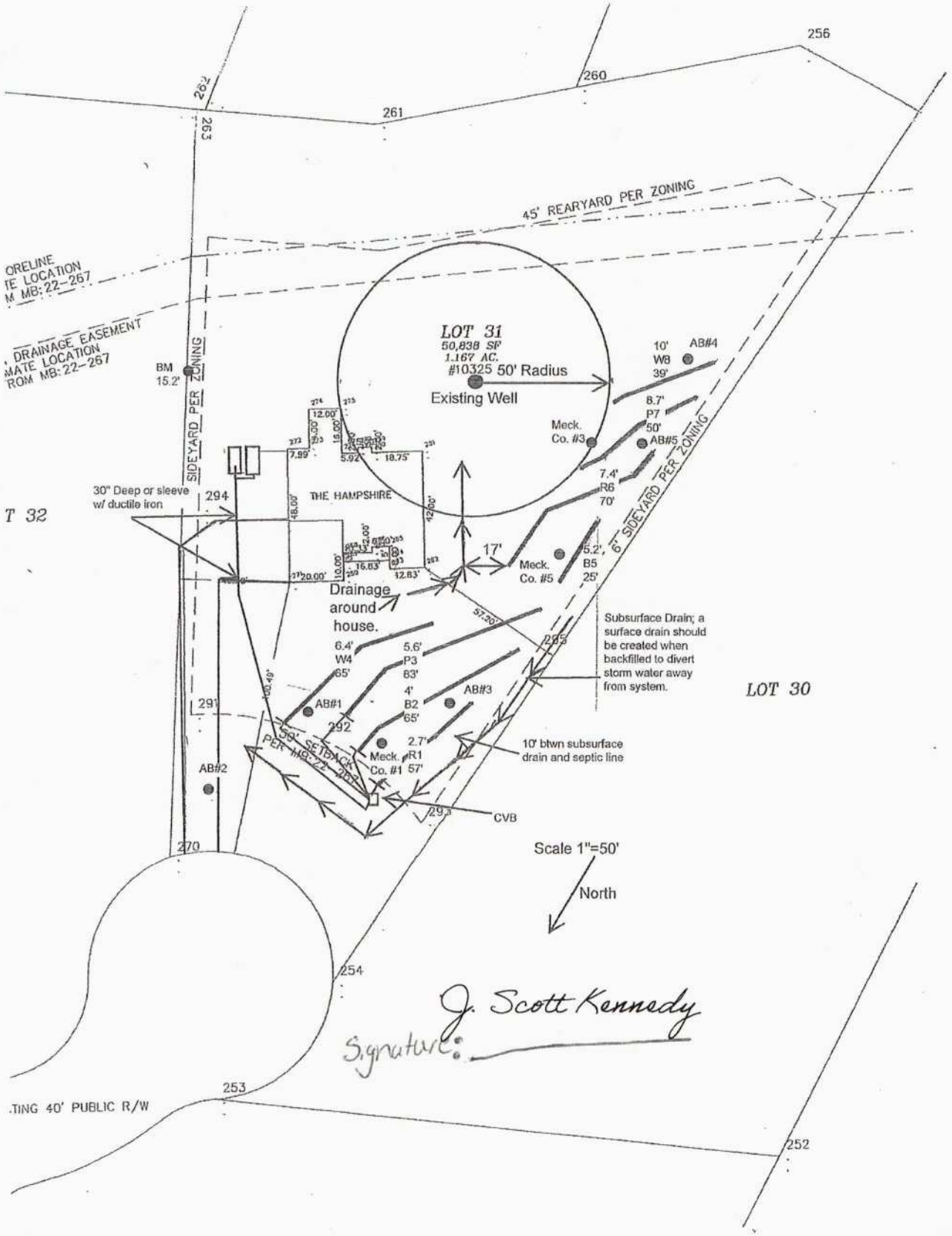
Authorized Agent: Heather Ray

Signature: Heather Ray

Date Issued: 11/28/2018

Owner/Legal Agent: J. Scott Kennedy
Print Name

Signature: J. Scott Kennedy


256
260
261
262
263
45' REARYARD PER ZONING
ORELINE
TE LOCATION
M MB: 22-267
DRAINAGE EASEMENT
MATE LOCATION
ROM MB: 22-267
BM
15.2'
SIDEYARD PER ZONING
LOT 31
50,838 SF
1.167 AC.
#10325 50' Radius
Existing Well
10'
W8
39'
AB#4
8.7'
P7
50'
AB#5
Meck.
Co. #3
7.4'
R6
70'
6' SIDEYARD PER ZONING
30" Deep or sleeve
w/ ductile iron
294
THE HAMPSHIRE
T 32
17'
Meck.
Co. #5
5.2'
B5
25'
Drainage
around
house.
Subsurface Drain; a
surface drain should
be created when
backfilled to divert
storm water away
from system.
LOT 30
6.4'
W4
65'
5.6'
P3
83'
4'
B2
65'
AB#3
AB#1
291
292
2.7'
R1
57'
Meck.
Co. #1
10' btwn subsurface
drain and septic line
AB#2
CVB
293
270
Scale 1"=50'
North
254
253
TING 40' PUBLIC R/W
252
J. Scott Kennedy
Signature:

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30010036** GWS File #: **4260A** Tax Parcel #: **111-321-36**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 11/28/2023

Type of Installation: Residential - Modified Plot Plan Lot Number: 0

Structure Type: HOUSE Size (ft^2): 5000 # Bedrooms: 3 Max. Occup.: 6

Building Foundation: Crawl Space Water Supply: Private Well

II. Initial System Type: PPBPS (pressurized) **System Classification:** IVa

Initial System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	.275	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	655	Total Trench Length (ft):	218
Maximum Trench Depth (in):	36	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

III. Repair System Type: PPBPS (pressurized) **System Classification:** IVa

Repair System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	.275	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	654	Total Trench Length (ft):	218
Maximum Trench Depth (in):	29	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distri		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Heather Ray Owner/Legal Agent:_____
Print Name

Signature: Heather Ray Signature:_____

Date Issued: 11/28/2018

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IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30010036** GWS File #: **4260A**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- Additional soil cover, as specified on the plot plan, required over the drain field must be inspected and approved prior to issuance of an Operation Permit.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 15 feet from any foundation drain.

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

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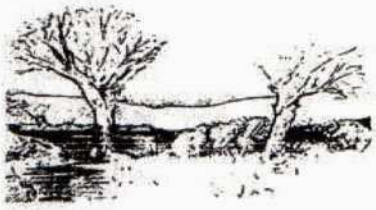
Authorized Agent: Heather Ray

Signature: _____

Date Issued: 11/28/2018

Owner/Legal Agent: _____
Print Name

Signature: _____



MICHAEL ATHANAS & ASSOCIATES
LICENSED SOIL SCIENTIST
561 Ennis Rd.
Weddington, NC 28173
(704) 576-3887

Reference: Data Sheet for Lot 31 Northlake; 10325 Windtree Lane; Parcel ID#: 11132136 Mecklenburg Co., NC

House Footprint: 50'x63'
Building Setback: 50' Front, 5' Side, 45' Rear
Water Source: Private Well
Number of Bedrooms: 3/360 GPD
Proposed LTAR: 0.275 gpd/ft2
Suggested System Type: PPBPS; 36" width with 9' centers
Proposed Repair LTAR: 0.275 gpd/ft2
Suggested Repair System Type: PPBPS
Distribution: LP-CVB; 1.25" laterals
Flow per Orifice: .59
Hole Size & Material: 3/16"
Number of Panels: 53
System Flow: 31.27 gal/min
Dosing Volume: 190.8 gal/dose
Pump Run Time: 6.10 min
Total Linear Footage: 218'
Trench Bottom Square Footage: 690 ft2
Elevation Head: 15.2'
Friction Head: 3.43'
Pressure Head: 2'
Total Dynamic Head: 20.63'
Supply Line Length: 160'; 2" PVC
Septic/Pump Tank Size: 1000 gallon septic tank and 1000 gallon pump tank
Proposed Trench Bottom: 36"
Proposed Repair Trench Bottom: 28"; 6" of cover will be required to be brought in. Class II or III.

Line	Actual Length	Design Length	Repair Length	# of Panels	Elevation
Red 1	**57'**	**55'**		**13**	**2.7'**
Blue 2	**71'**	**70'**		**16**	**4'**
Pink 3	**87'**	**85'**		**19**	**5.6'**
White 4	**55'**	**20'**	30'	**5**	**6.4'**
Blue 5	25'				5.2'
Red 6	70'				7.4'
Pink 7	50'				8.7'
White 8	39'				10'

Initial System: 220' PPBPS **Repair System:** 213' PPBPS* Part of the repair was installed in W4.
House Corner: 14.5' **Pump Tank:** 12.9'
Bench Mark: 15.2' iron located along property line 96.97' from corner.
CVB: 2.7'
Comments:
The purpose of this evaluation is to permit the property for a 3 bedroom system.

- There should be no cuts greater than 2' within 25' of the system.
- The pressure line should be buried at least 30" deep under the driveway or sleeved in ductile iron.
- The subsurface drain should be installed along the property and no closer than 10' to the ends of the septic lines. See site plan for locations. An additional surface drain should be constructed during back filling to keep storm water from running on to the system.

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

Septic System Pre-Construction Meeting Checklist

File # 4260a App #_____ Tax Parcel # 11132136

Property Owner: John Renee Courage

Job Location Address: 10325 Windtree

City: Charlotte State: NC Zip Code: NC 28205

1. **Does System design match facility, flow & wastewater characteristics?**

   ☑ YES ☐ NO

   Comments:_____

2. **Is there sufficient available space for the septic systems initial and repair areas?**

   ☑ YES ☑ NO

   Comments:_____

   _____

3. **Can the septic system be installed per the permit conditions and drawing on file?**

   ☐ YES ☑ NO

   Comments: drive Way constructed in incorrect area. Change Elevation of system area

*** If "NO" is checked for any of the above the existing permit may need to be revoked.**

Permission is hereby given to ☐ install ☐ alter ☐ repair an on-site wastewater treatment & and disposal system, with subsurface soil absorption and effluent discharge meeting all of the construction requirements of 15A NCAC 18A .1900 which are in effect on the date of granting this approval. System shall not be installed while soils are in wet condition.

Authorized Agent _____ Date 3-26-19

April Burngarner
Others Present Shawn Stanley Environmental

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700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 4260a Permit #: 3001036 Tax Parcel #: 111-321-36

Property Owner: Renee & John Courage

Job Location Address: 10325 Hingtree

City: Charlotte State: NC Zip Code: 28205

Operation Permit Issuance Date: 5-7-19 Contractor Name: Stanley Environmental

Permitted Design Flow: 360 GPD Liquid Capacity of Dosing Tank: 1000 gallons

Liquid Capacity of Septic Tank: 1000 gallons Manufacture Dellinger Effluent Pump Model: 1/3hp Gould

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 235 feet

# of Lines: 4 @ Vary feet 25, 80, 75, 55

Depth of Media: 22 inches (Type) PPBPS

Depth of Cover: Very inches 12"-18"

Distribution Device: Manifold

Bed Installation *(For Repair Installations ONLY.)* ☐ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: 9' feet

Distance from Property Line: 15 feet

Distance from Water Supply Source: >50' feet

Inspection Dates

Tank(s) Inspected: 3-26-19

Excavation Inspected: 3-27-19

Pump & Controls Inspected: 4-29-19

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

See attached

The undersigned has inspected the Septic Tank System described above, and certifies it has been ☒ installed ☐ altered ☐ repaired ☐ as detailed in the plot above ☒ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: IVa / PPBPs / P / Na / Na

DENR Authorized Agent: Heather Ray Signature: Heather Ray

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 4260a Permit #: 30010036 Tax Parcel #: 111-321-36

Property Owner: Renee & John Courage

Job Location Address: 10325 Windtree

City: Charlotte State: NC Zip Code: 28205

OPERATION PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with 15A NCAC 18A .1961.

II. Monitoring: System shall be monitored as required by 15A NCAC 18A .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

IV. Operation: System shall be operated in accordance with 15A NCAC 18A .1961.

System Classification: IVa

*Operation Permits for Type V and VI systems expire five (5) years from the date of issuance (in accordance with Table V(a)). The system owner must contact GWS six (6) months prior to expiration for permit renewal.

Subsurface system operator required: Yes ☑ No ☐

☑ This type of system requires the system owner to maintain a contract with a certified operator to perform system inspection, maintenance, and reporting as required in 15A NCAC 18A .1961. and Table V(a). The system owner is responsible for all fees associated with these services.

☐ System does not require inspection by GWS on a routine frequency.

☐ System requires inspection by GWS once every five (5) years. The system owner is responsible for all fees associated with the inspection.

☑ System requires inspection by GWS once every three (3) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

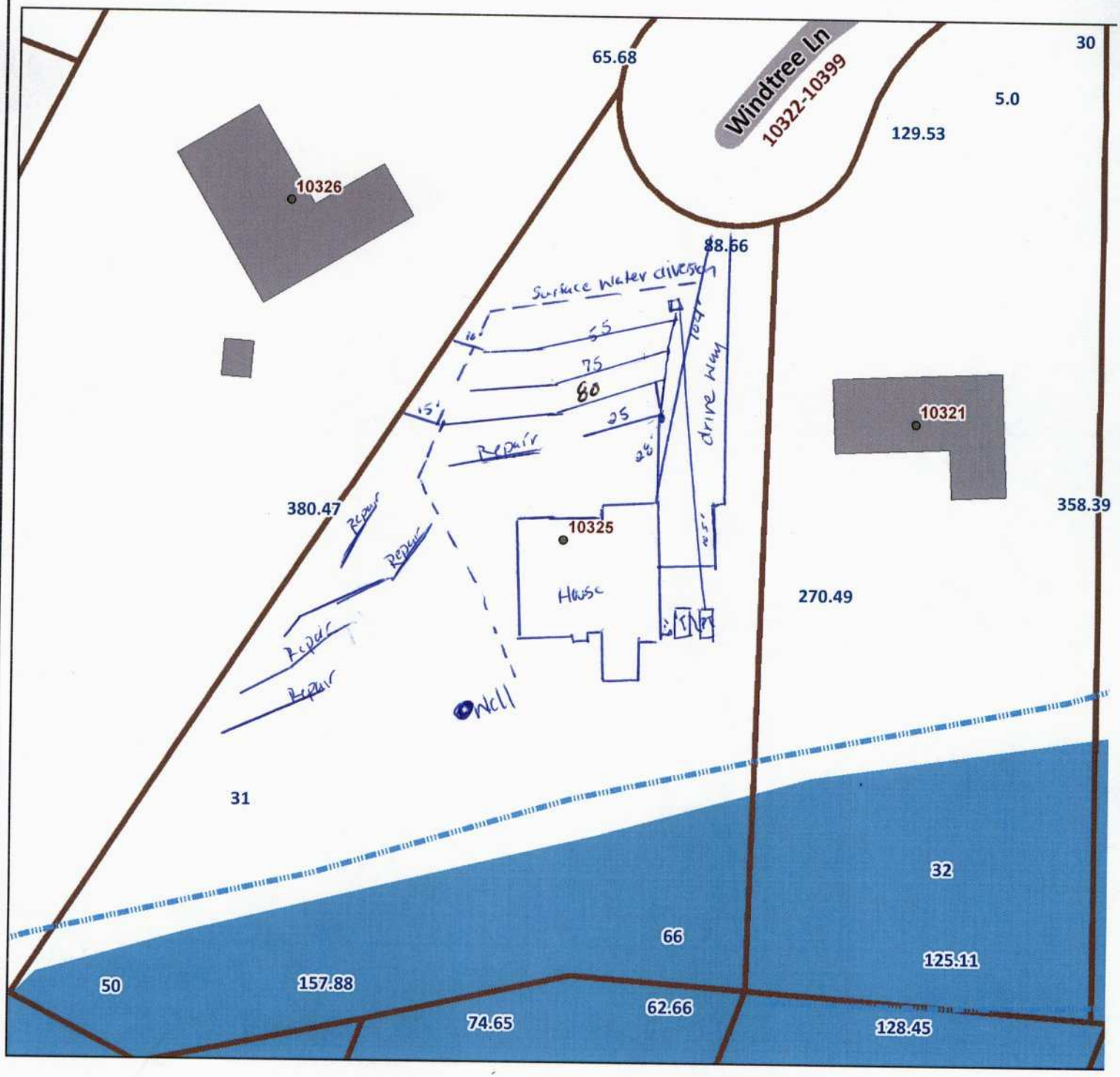
☐ System requires inspection by GWS once every six (6) months. The system owner is responsible for all fees associated with the inspection.

V. Other:

DENR Authorized Agent: Heather Ray Date: 4-29-19

Signature: Heather Ray

On-site Wastewater Improvement Permit Diagram



Mecklenburg County Health Department
Environmental Health - Groundwater and Wastewater Services

Permit #:30010036
PID #:111-321-36
File #:4260a

1 inch = 50 fee

Stanley Environmental Solutions

Septic System Maintenance Agreement

THIS AGREEMENT is made as of _____ between Stanley Environmental Solutions Inc, a North Carolina Corporation with offices located at 131 Mariposa Road, Stanley North Carolina (Hereby known as contractor) and _____ located at 10325 Windtree Lane, Charlotte NC 28215 (Hereby known as customer) with phone of _____ and email address of _____.

For and in consideration of the mutual covenants and agreements set forth herein and other good and valuable consideration, contractor and customer hereby covenant and agree as follows:
The term of this agreement shall begin on 5/1 and shall automatically renew for successive terms, subject to the termination by either party with 30 day written notice upon approval of Stanley Environmental Solutions.

Service Types *(Type IV Low Pressure Panel):*
The scopes of work provided by contractor are as follows:

1. Wash the septic tank filter, 2 times a year
2. Wash the pump tank filter, 2 times a year
3. Check for any leaks, 2 times a year
4. Inspect pump, floats, control panel and alarm, 2 times a year
5. Inspect the drain field, 2 times a year
6. Flush system and verify head pressures, 1 time a year
7. The total cost per year is **$300.00.**

Schedule: It will be the responsibility of the contractor to schedule the services two times a year. The first inspection will be scheduled as soon as the signed contract is returned to the contractor from the customer and the annual invoice is paid or six months after the homeowner moves in. The second inspection will be scheduled six months after the 1st inspection is completed.

Fees for Services:
The contractor will submit invoice to the customer for the services **before** the 1st scheduled and completed inspection. Such invoicing shall state the necessary details regarding the services performed as specified in the applicable service agreement. For approved customers payment terms are Net 15 days with a 1.5% late charge for all invoices not paid beyond 15 days. **Customer billing address is** _____.

Your contact for this agreement is Chris Withers, who can be reached at 704-263-8186. Please return this agreement via email: Chris.Withers@stanleyenviro.com or mail: PO Box 184 Stanley, NC 28164.

Customer	**Stanley Environmental Solutions**
By: _____	By: _____
Print Name: _____	Print Name: Chris Withers
Title: _____Homeowner_____	Title: Branch Admin, Supervisor
Date: _____	Date: _____

PIEDMONT DESIGN ASSOCIATES, P.A.
125 East Plaza Drive | Suite #101
Mooresville, NC 28115
Phone: 704-664-7888 | Fax: 704-664-1778
Email: dmunday@pdapa.com

Engineering
Surveying
Planning

April 29, 2019

Mecklenburg County Health Department
Groundwater & Wastewater Services
700 North Tryon Street, Suite 211
Charlotte, NC 28202
Attn: Heather Ray, REHS

RE: LP PPBPS Subsurface Effluent Disposal System
10325 Windtree Lane, Mecklenburg County, North Carolina

Dear Mrs. Ray:

ENGINEERS CERTIFICATION

I, **Donald L. Munday**, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe periodically the construction of the referenced project, LP PPBPS Subsurface Effluent Disposal System; 10325 Windtree Lane (Lot 31 Northlake Subdivision) located in Charlotte, Mecklenburg County, NC, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the approved plans and specifications.

Sincerely,

PIEDMONT DESIGN ASSOCIATES, P.A.

Donald L. Munday, P.E.
N.C. Registration No. 17327



04/29/2019

Cc: Michael Athanas, LSS
Matt Daly, Knotts Builders