

1/11/2008

duponbj

Groundwater and Wastewater Services File Imaging Project

May 2007

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Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6946 B WASPS App #: 1903

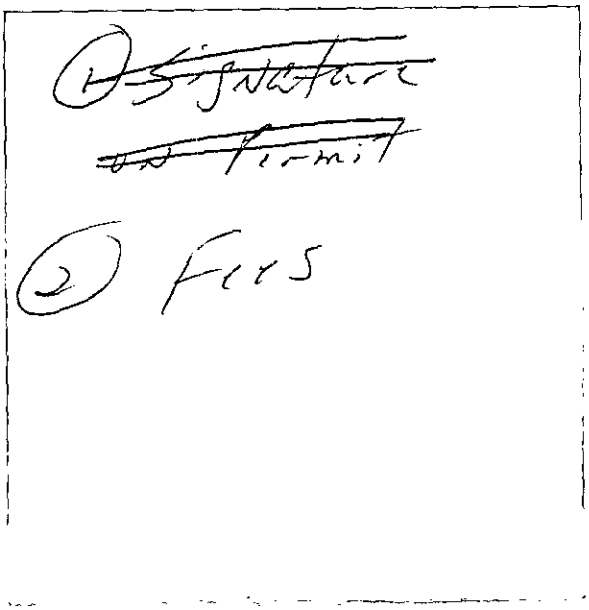
Primary ES assigned to project: CS

Secondary ES assigned to project:

Project Type: New System ☑ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law				
	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☑	No ☐	N/A ☐
1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☑	No ☐	N/A ☑
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☐	No ☐	N/A ☑
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☑
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 3 Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR 3	Yes ☐	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☑	No ☐	N/A ☐
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)				
.1945(b)	Repair area shown	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐


① ~~Signature~~
~~Permit~~
② Fees

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?			
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Property line lengths shown?	Yes ☐	No ☐	N/A ☑
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐
		Yes ☑	No ☐	N/A ☐

Operation Permit

.1937(i)	System type as described in table V(a) of rule .1961	Yes ☑	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☐	No ☐	N/A ☐

H. WASPS Review:

Construction authorization issued	Yes ☐	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

_____

_____

_____

_____

_____

IA issued date: _____

OP issued date: _____

Review performed by: ICR

Date performed: 5-14-07

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

Permit #: **30002546** GWS File #: **6946B** Tax Parcel #: **199-352-14**

- 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. The Construction Authorization is **NOT** transferable. 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):** 8/9/2012

Type of Installation: Residential - New System Lot Number: 139

Structure Type: HOUSE Size (ft^2): 10000 # Bedrooms: 12 # Occupants: 24

Building Foundation: Basement With Plumbing Water Supply: Municipal

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

Initial System Specifications:

Design Flow (gpd): 1440 LTAR (gpd/ft^2): 0.3 Septic Tank Size (gal): 2185 Pump Tank Size (gal): 2185

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 2400 Total Trench Length (ft): 800

Maximum Trench Depth (in): 30 Depth of Media (in): 24 Distribution Device: Manifold (LPP Distri

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

Repair System Specifications:

Design Flow (gpd): 1440 LTAR (gpd/ft^2): 0.3 Septic Tank Size (gal): 2185 Pump Tank Size (gal): 0

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 2400 Total Trench Length (ft): 800

Maximum Trench Depth (in): 30 Depth of Media (in): 24 Distribution Device: Manifold (LPP Distri

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, 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 an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Sherrill Owner/Legal Agent: Karen Wallace
Print Name

Signature: Chris Sherrill Signature: Karen D. Wallace

Date Issued: 8/9/2007

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

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Division of Environmental Health
On-Site Wastewater Section

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

Permit #: **30002546** GWS File #: **6946B**

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.
- This type of repair system requires the installation of a pump tank and all associated components. This type of system will require routine inspections by our office. The system owner is responsible for all fees associated with these inspections.
- This type of repair system requires the property owner to obtain a contract with a Certified Operator to perform routine inspections and maintenance on the system.
- This type of repair system requires periodic inspections by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.
- DESIGN REQUIRES ZOELLER AUTOMATIC MULTI-ZONE VALVE. SEE CONSULTANT'S REPORT FOR SPECIFICATIONS.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, 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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- The permitted system shall be installed in accordance with the included PLOT PLAN.
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DENR Authorized Agent: Chris Sherrill Owner/Legal Agent: Karen Wallace
Print Name

Signature: Chris Sherrill Signature: Karen D. Wallace

Date Issued: 8/9/2007

S&ME

GWS Septic System Design Review

GWS File #: 6496B **Approved** **Disapproved**

Design Review: TCT 8-9-07 ☒ ☐

Field Review: CMS 8/9/07 ☑ ☐

***Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.**

August 1, 2007

Mr. James Martin
The Sanctuary at Lake Wylie
11104 Limehurst Place
Charlotte, North Carolina 28278

Reference: **Revision of Septic Improvement Permit for Lot 139 at The Sanctuary at Lake Wylie Phase 4b**
Mecklenburg County Health Department (MCHD) File # **6946B**

Dear Mr. Martin,

Attached is the request for the revision to the Improvement Permit for the above referenced lot. The lot was originally permitted for a 5 bedroom house and you are now requesting an Improvement Permit for a 12 bedroom house. We are proposing a LPPPBPS system with 800 feet of line. We are proposing the system be split into 2 subfields of 400 feet each. A Zoeller automatic multizone valve is shown to dose the 2 subfields. Dual pumps and a duplex control panel could also be used.

MODEL 6402

Mr. Chris Sherrill has evaluated the soils (see attached MCHD soil sheets) and S&ME, Inc. has flagged the system and repair on the lot. The septic lines have been located by your surveyor and are shown on the attached maps provided by YW&H, Inc. The attached sketch and specifications are not an Improvement Permit and are intended only to assist the MCHD in permitting the referenced lot at The Sanctuary.

We understand that a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The buyer will apply for the ATC. If the buyer's house pad does not fit in the "building envelope" shown on the Improvement Permit, we understand that the proposed system may have to be modified prior to your office issuing the ATC. **No grading shall take place on the lot prior to obtaining the ATC from the MCHD.**

Tri-County Wastewater (TCWW) is under contract to supply maintenance services for each septic system installed at The Sanctuary. TCWW will have a list of preferred septic contractors for the subdivision and will also have requirements for septic system installation that are greater than the MCHD and State requirements. It will be the responsibility of TCWW to enforce any requirements above State requirements or the MCHD conditions on the Improvement Permit.

Please review the attached system sketch and design specifications for the Improvement Permit. Any additions or revisions you feel are necessary can be made on the Improvement Permit. Please call in you have and questions or comments.

Sincerely,

S&ME, Inc.

FOR

Paul G. Penninger, LSS
Licensed Soil Scientist

Rob Willcox, LSS
Natural Resources Department Manager

Attachments:

1. System Specifications
2. Site Plan of Initial and Repair Systems
3. Overall Lot Map
4. MCHD Soil Evaluation

Copy: Mr. Chris Sherrill, R.S., L.S.S.
MCHD

S&ME

Design Specifications for Lot 139 at The Sanctuary
MCHD File # 6946B

√ TCT 8-9-07

Daily Design Flow:	1440 gpd
Number Bedrooms:	12 BR
Basement or Crawlspace:	Basement
Septic Tank Size:	2185 gal
Pump Tank Size:	2185 gal
Primary System Loading Rate:	0.30 gpd/ft^2
Primary System:	LP PPBPS
Number and length of laterals:	2 Subfields: 1) 6 lines @ 67 ft. endfed 2) 6 lines @ 67 ft. endfed
Total ft. of primary system:	800 ft.
Number of T&J Panels:	15 panels per 67 ft. of line (180 panels total)
Flow Rate through system (per sub field):	44 gpm – use 5/32 in. holes with 3 ft. head pressure
Pump Requirements:	to be calculated by installer when specific house and pump tank locations are available
Dosing Volume:	approx. 316 gal. – (3.6 gal per panel)*
Depth of effluent pumped per dose:	calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Check Valve:	yes
Siphon break hole:	yes
Repair System Loading Rate:	0.3 gpd/ft^2
Repair System:	LP PPBPS
Total ft. of repair	897 ft. (800 ft. required)

Notes: Before placement of cap block, one panel on each line, near the center of the field should be observed filling to male certain that it does not overflow the top chamber into the air chambers. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

L23		44'18"E
L24	41.99	N85°27'18"E
L25	50.82	S83°14'36"E
L26	22.86	S79°52'34"E
L27	28.64	S76°57'32"E
L28	15.06	N67°07'13"E
L29	18.89	S87°08'39"E
	25.29	S87°08'39"E
		N80°44'16"E

ALL MATERI
OFF-SITE LA
THERE WILL
AND/OR ERO

PROPERTY ZO
MIN FRONT SE
MINIMUM SIDEY
MINIMUM REAR

NO DWELLING UN
THE 50' ADDITION

MAXIMUM IMPERV

SANCTUARY BUF
A PORTION OF T
WATERSHED OVER
REPRESENT A 50'
SHORELINE OF LO
ELVEATION (570 F
REMOVAL OF UNDE
DEAD TREES MAY E
CONFORM TO THE C
WYLIE WATERSHED C

TREE SAVE ARE PER
OF CHARLOTTE TREE

30' REARYARD

*SCALE: 1"=60'

C53
R: 461.37'
221.52'
5' SIDEYARD

N35°36'22"E
97.59'

C54
R: 371.63'
68.44'

COS

C55
R: 340.21'
256.57'
5' SIDEYARD

N74°20'28"E
36.06'

139
550,973 SF
MINIMUM
FPE-573.00'

67' WHITE FLAGS
67' ORANGE
67' WHITE FLAGS
67' RED FLAGS
67' PINK FLAGS
67' BLUE FLAGS

CENTRAL GATE VALVE BOXES (2)

DRIVE

720'

SUPPLY LINE

100'

ZOELLER
"AUTOMATIC MULTIZONE VALVE"

67' PINK FLAGS
67' WHITE FLAGS
67' ORANGE FLAGS
67' RED FLAGS
67' RED
67' PINK FLAGS
WHITE FLAGS
KEPAX 115' PINK FLAGS
KEPAX 115' ORANGE FLAGS
KEPAX 92' WHITE FLAGS(2)
KEPAX 100' RED FLAGS(2)
KEPAX 96' BLUE FLAGS(2)
KEPAX 97' ORANGE FLAGS(2)
KEPAX 101' PINK FLAGS(2)
KEPAX 66' RED FLAGS(2)

20' SETBACK

237.22'
C41
R: 375.00'

LITTLE KERN LANE
50' PUBLIC R/W

14
THE SANCTI
PHASE 4 M
SHEET 2
UNRECORDE

5' SIDEYARD

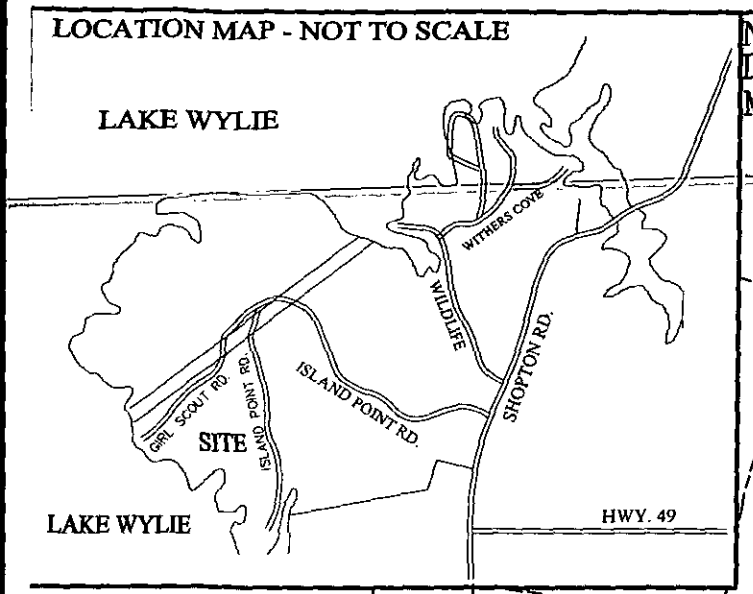
N34°45'35"E 949.41'TOTAL

744.00'

NORTH CAROLINA
PROFESSIONAL
SEAL
L-3954
HOUSEKEEPER, JR.

2-3-07

LOCATION MAP - NOT TO SCALE



Now or Formerly
Dexter R. Yager,Sr
Map Book 26-979

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C41	375.00	237.22	233.30	S56°44'57"E	36°14'41"
C42	375.00	14.56	14.56	N37°30'51"W	2°13'31"
C46	70.00	24.12	24.00	N21°24'33"W	19°44'40"
C53	461.37	221.52	219.40	N49°21'39"E	27°30'34"
C54	371.63	68.44	68.35	N40°52'56"E	10°33'09"
C55	340.21	256.57	250.53	S84°03'17"E	43°12'31"

LINE TABLE		
LINE	LENGTH	BEARING
L9	50.33	N58°00'23"E
L10	40.04	N14°10'01"E
L11	36.36	N03°55'17"W
L12	14.29	N14°48'28"W
L13	56.45	N35°11'52"W
L14	59.40	N38°54'56"W
L15	8.49	S77°09'33"E
L16	16.76	S65°03'22"E
L17	43.73	S54°31'12"E
L18	43.73	S75°35'31"E
L19	47.99	S65°03'22"E
L20	20.00	S65°03'23"E
L21	47.64	S59°44'18"E
L22	96.87	N85°27'18"E
L23	41.99	S83°14'36"E
L24	50.82	S79°52'34"E
L25	22.86	S76°57'32"E
L26	28.64	N67°07'13"E
L27	15.06	S87°08'39"E
L28	18.89	S87°08'39"E
L29	25.29	N80°44'16"E

NOTES.....

IRON PINS ON ALL CORNERS UNLESS OTHERWISE NOTED

ALL MEDIANS AND ISLANDS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION, DEVELOPER, OR HIS ASSIGNS.

COMMON OPEN SPACE TO BE MAINTAINED BY THE HOME OWNERS

ALL HARD SURFACE & SOFT SURFACE TRAILS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE SANCTUARY PROPERTY OWNERS ASSOCIATION, OR IT'S ASSIGNS.

THE PURPOSE OF THE STORM DRAINAGE EASEMENT IS TO PROVIDE STORM WATER CONVEYANCE AND ANY STRUCTURES AND/OR OBSTRUCTIONS TO STORM WATER FLOW IS PROHIBITED.

AREAS CALCULATED BY COORDINATE METHOD

NO ON-SITE DEMOLITION OR STUMP BURIAL WILL BE ALLOWED. ALL MATERIALS WILL BE DISPOSED OF IN AN APPROVED OFF-SITE LANDFILL.

THERE WILL BE NO SANITARY SEWER, STORM DRAINAGE, AND/OR EROSION CONTROL FACILITIES IN THE 100'

PROPERTY ZONED MX-1 REZONING PETITION # 2003-024
MIN FRONT SETBACK 20'
MINIMUM SIDEYARD SETBACK 5'
MINIMUM REAR YARD 30'

NO DWELLING UNITS MAY BE LOCATED WITHIN THE REQUIRED SHORELINE BUFFER THE 50' ADDITIONAL SHORELINE BUFFER OR THE RESTRICTED ZONE.

MAXIMUM IMPERVIOUS COVER WILL BE LIMITED TO 12% ON THESE LOTS

SANCTUARY BUFFER ZONE NOTES:
A PORTION OF THESE LOTS ARE WITHIN THE 50 FOOT LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA THE AREAS IDENTIFIED REPRESENT A 50' UNDISTURBED VEGETATIVE BUFFER ADJACENT TO THE SHORELINE OF LOWER LAKE WYLIE AND MEASURED FROM THE FULL POND ELVEATION (570 FOOT CONTOUR). NO CLEARING, NO SELECTIVE THINNING, REMOVAL OF UNDERGROWTH OR 2" CALLIPER TREE IS ALLOWED AND ONLY DEAD TREES MAY BE REMOVED IN THIS AREA. THIS AREA SHALL CONFORM TO THE CHARLOTTE CODE SECTION 10.7 LOWER LAKE WYLIE WATERSHED OVERLAY.

TREE SAVE ARE PER THE REQUIREMENTS OF THE CITY OF CHARLOTTE TREE ORDINANCE, CHAPTER 21 CITY CODE.

FLYING EAGLE LANE
SR 1378
60' PUBLIC R/W

20' SWE

100' BUFFER

50' CLASS C BUFFER

N56°35'51"E 206.40'

284.81'TOTAL

78.41'

30' REARYARD

N31°16'55"W 103.92'

R:70.00' C46 24.12'

N63°06'57"E 143.24'

5' SIDEYARD

C53 R:461.37' 221.52'

N35°36'22"E 97.59'

C54 R:371.63' 68.44'

COS

C55 R:340.21' 256.57'

N74°20'28"E 36.06'

LITTLE KERN LANE
50' PUBLIC R/W
R:375.00'

50' LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA

50' ADDITIONAL SHORELINE BUFFER

TREE SAVE AREA & RESTRICTED ZONE

N07°20'55"E 121.81'

S58°03'25"E 52.03'

S60°17'13"E 37.24'

N85°27'18"E 55.05'

S83°14'36"E 67.66'

N67°07'13"E 12.9'

S79°52'34"E 21.07'

S87°08'39"E 55.40'

N80°44'16"E 31.64'

CHORD S83°50'35"E 51.16' R:100.00' 51.82'

S68°25'25"E 83.56'

205.41'

139
550,973 SF
MINIMUM
FPE=573.00'

720'

DRIVE

28' BUILDING SETBACK

235.22'

141
THE SANCTUARY
PHASE 4 MAP 2
SHEET 2
UNRECORDED

NC GRID - NAD 83 - SPC 97

20' SWE

5' SIDEYARD

N34°45'35"E 949.41'TOTAL

744.00'

138
THE SANCTUARY
PHASE 4 MAP 2
SHEET 2
UNRECORDED

WHITE FLAGS(2)
ORANGE FLAGS
WHITE FLAGS
RED FLAGS
PINK FLAGS
BLUE FLAGS

PINK FLAGS
WHITE FLAGS
ORANGE FLAGS
RED FLAGS

WHITE FLAGS
PINK FLAGS
ORANGE FLAGS

WHITE FLAGS(2)
RED FLAGS(2)
ORANGE FLAGS(2)
BLUE FLAGS(2)

PINK FLAGS(2)
ORANGE FLAGS(2)
RED FLAGS(2)

LEGEND .....
COS - COMMON OPEN SPACE
SDE - STORM DRAINAGE EASEMENT
SWE - SIDEWALK EASEMENT
R/W - RIGHT-OF-WAY
FPE - FLOOD PROTECTION ELEVATION (SAME AS MINIMUM FINISHED FLOOR ELEVATION)
SWPE - STORM WATER PROTECTION ELEVATION

Surveyed Location Fema Floodplain Boundary Line Per Fema Community
FEMA FIRM PANELS 370158 0222E, 0221E & 0242E DATED 2-4-2004.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NORTH CAROLINA PROFESSIONAL SEAL L-3954 LAND SURVEYOR JOSEPH E. WHALEY, JR.

House

SEPTIC EXHIBIT MAP FOR LOT 139

SCALE	TOWNSHIP	COUNTY	STATE	DATE
1" = 100'	STEELE CREEK	MECK.	N.C.	7/28/07

LITTLE KERN LANE
LOT 139, THE SANCTUARY PH.4 MAP 2 SHEET 2

SURVEYED RH
MAPPED RAS

YARBROUGH - WILLIAMS & HOULE, INC.
Planning • Surveying • Engineering
730 Windsor Oak Court Charlotte NC 28273
P.O. BOX 7007 Charlotte NC 28241
704.556.1990 704.556.0505(fax)

MAP RECORDED
DEED RECORDED 16493-360

CRESENT/TEMPLE/POINT(sanctuary)/FIELD-MAPS-042407.dwg, 7/30/2007 9:12:30 AM, JoeW.

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

Sheet: 1 of 2
Property ID: 199-352-14PO
Lot #: 139
File #: 6946B
AppID: 2546

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary of Lake Wylie
Address: 11104 Limehurst Pl., Charlotte, NC 28278
Proposed Facility: Residence Design Flow (.1949): 2400 gpd
Location of Site: Little Kern Lane
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

Applicant: P.Penninger
Date Evaluated: 7/31/2007
Property Size:
Property Recorded:

PROFILE #	1940 Landscape Position/(%) Slope%	SOIL MORPHOLOGY Horizon Depth (in)	Structure Texture	Consistence Mottling	PROFILE FACTORS Restrictive Horizon (in)	Depth to Seasonal High Water Table (in)	Soil Wetness Class	Restrictive Horizon Type	Profile Class & Initial Rate
1	LS,20	0-3	GR/SCL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48	NA	NONE	PS,IV .3 GPD/FT^2
		3-32	SBK/C	FI/S/P/SEXP					
		32-48	SBK/CL	FR/S/P/SEXP					
2	"	0-5	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		5-48	SBK/C	FI/S/P/SEXP					
3	"	0-12	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		12-48	SBK/C	FI/S/P/SEXP					
4	"	0-40	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		40-48	SBK/C	FI/S/P/SEXP					
					SITE LTAR				.3 GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IV a	IV a
Site LTAR	.3 gpd/ft2	.3 gpd/ft2

Other Factors (.1946): None
Soil Evaluation By: Chris Sherrill, RS, LSS
Others Present: P.Penninger-S&ME
Site Classification (.1948): PS
Site Evaluation By: Chris Sherrill, RS, LSS
Others Present: P.Penninger-S&ME

TOTAL P.05

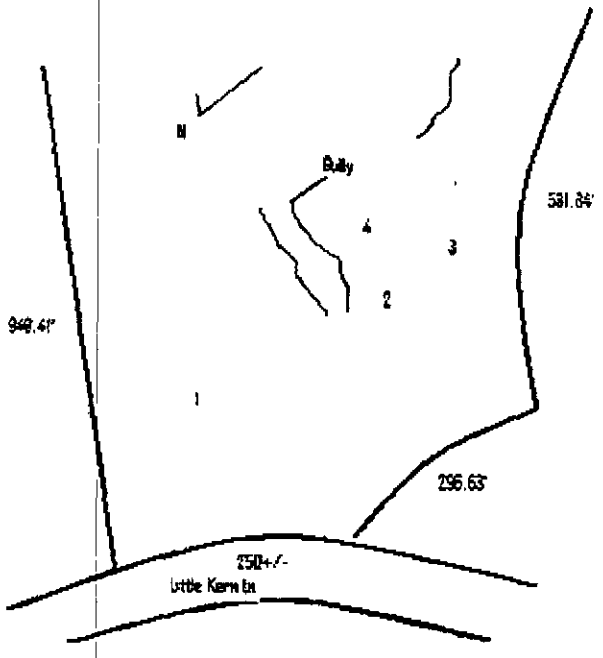
COMMENTS: 100% Repair Area Required

FILE #: 6946B

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace		CL-Clay Loam		
FP-Flood Plain		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



"Quality Pumps Since 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

ZOELLER PUMP CO.

SECTION: 3.20.175
FM1732
0606
Supersedes
1204

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

visit our web site:
www.zoeller.com

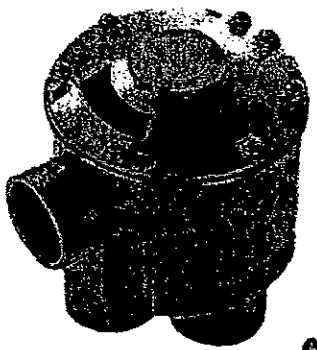
ZOELLER ON-SITE WASTEWATER PRODUCTS

ZOELLER SEPTIC SYSTEM ACCESSORIES

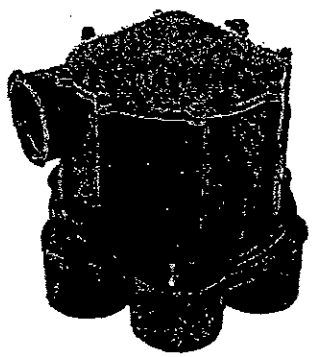
Automatic Multizone Valves

The Zoeller 4000 Series distribution valve offers an easy, reliable and economical way to automate multiple zoned residential and small commercial disposal fields. The simplicity of design ensures ease of maintenance and long service life. These patented valves are ideally suited for pump fed applications using reclaimed or dirty water.

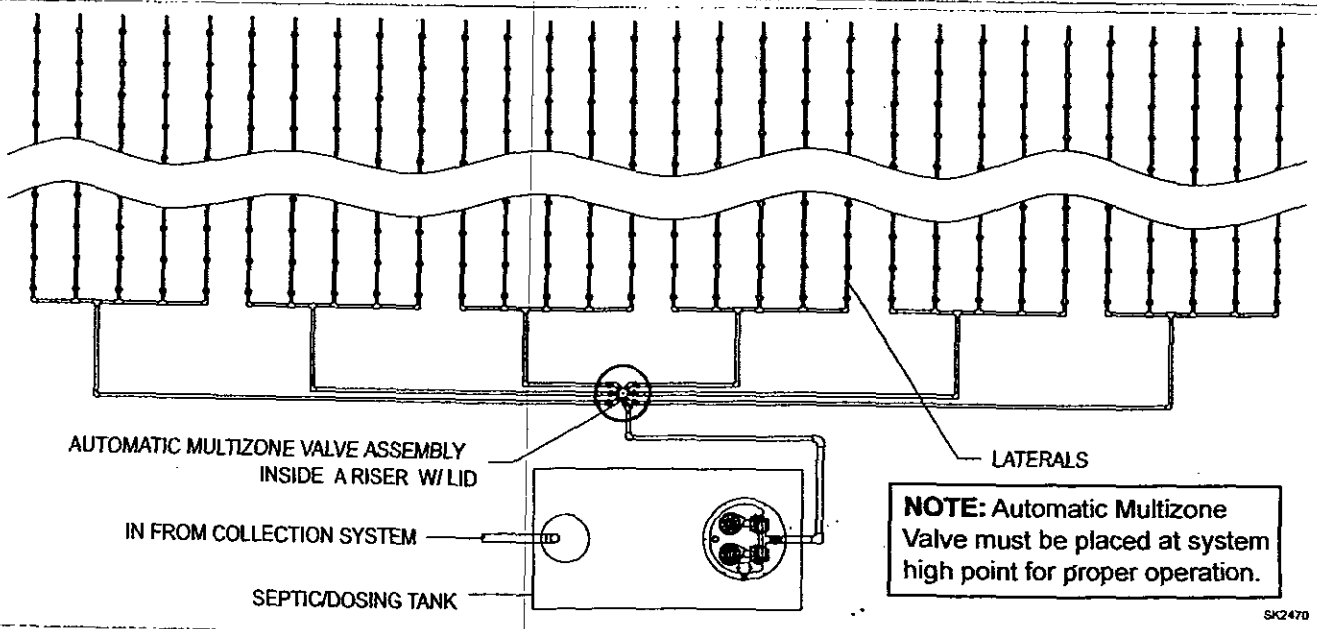
The Zoeller 6000 Series is the foundation of distributing valves. Patented for its ability to manifold multiple zones with only one moving part, this valve offers exceptional reliability and durability under dirty water conditions. With its metal die cast body, the 6000 Series valve is capable of high pressure applications and is recommended for use on pump fed systems.



4000 Series



6000 Series



NOTE: Automatic Multizone Valve must be placed at system high point for proper operation.

SK2470

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4000 & 6000 Automatic Multizone Valves

SPECIFICATIONS	4000 SERIES	6000 SERIES
Flow Range: (Minimum flow of 10 gpm for the 4000 Series and 15 gpm for the 6000 Series must be maintained in order for the valve to index properly.)	4 Outlet Valve: 10 - 50 GPM 6 Outlet Valve: 10 - 40 GPM	4 Outlet Valve: 15 - 150 GPM 6 Outlet Valve: 15 - 150 GPM
Pressure Rating:	2½ - 75 PSI	2½ - 150 PSI
Pressure Loss - 4 Outlet Valve:	Flow (GPM): 10 20 30 40 50 PSI Loss: 2.0 3.0 4.5 6.4 10.0	Flow (GPM): 15 30 60 90 120 150 PSI Loss: 2.0 3.0 5.0 9.0 11.0 13.0
Pressure Loss - 6 Outlet Valve:	Flow (GPM): 10 20 30 40 PSI Loss: 2.5 4.5 7.5 11.5	Flow (GPM): 15 30 60 90 120 150 PSI Loss: 2.0 3.5 6.0 10.0 12.0 14.0
Inlet:	Slip and glue connections to 1¼" PVC pipe	Threaded 1½" NPT Connection.
Outlets:	Slip and glue connections. 4 Outlet Valve: To 1¼" PVC Pipe 6 Outlet Valve: To 1" PVC Pipe	Slip and glue connections to 1½" PVC Pipe.
Construction:	High strength noncorrosive ABS polymer.	Die Cast Metal Housing High strength noncorrosive ABS Polymer Outlets
Dimensions:	Height: 5¾" Width: 5¾"	Height: 7" Width: 8"

6" Clear PVC Pipe

P/N 170-0074	(4) 1¼" Dia. Pieces For 4400 2-4 Zone.	P/N 170-0076	(4) 1½" Dia. Pieces For 6400 2-4 Zone.
P/N 170-0075	(6) 1" Dia. Pieces For 4600 5-6 Zone.	P/N 170-0077	(6) 1½" Dia. Pieces For 6600 5-6 Zone.

4000 SERIES:

4 Outlet Models

P/N 170-0064	Model 4402 - For 2 Zone operation.
P/N 170-0065	Model 4403 - For 3 Zone operation.
P/N 170-0066	Model 4404 - For 4 Zone operation.

6 Outlet Models

P/N 170-0067	Model 4605 - For 5 Zone operation.
P/N 170-0068	Model 4606 - For 6 Zone operation.

6000 SERIES:

4 Outlet Models

* P/N 170-0069	Model 6402 - For 2 Zone operation.
P/N 170-0070	Model 6403 - For 3 Zone operation.
P/N 170-0071	Model 6404 - For 4 Zone operation.

6 Outlet Models

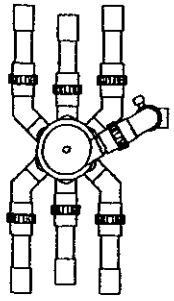
P/N 170-0072	Model 6605 - For 5 Zone operation.
P/N 170-0073	Model 6606 - For 6 Zone operation.

New Automatic Multizone Valve Assemblies

Featuring 6000 Series Automatic Multizone Valves

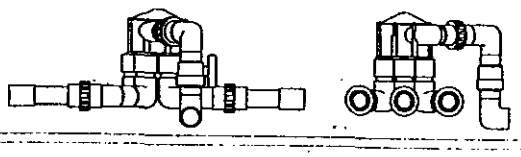
- Easy to install -
  Slip ends are ready to glue.
- Easy to maintain -
  Unions allow for simple removal. Shutoff ball valve included.
- Convenient to test -
  Clear PVC "Windows" indicate current flow path instantly.
- Compact -
  Assemblies fit easily in a Zoeller 30" Deluxe Riser.

P/N 5053-0001	2 Outlet Multizone Assembly.
P/N 5053-0002	3 Outlet Multizone Assembly.
P/N 5053-0003	4 Outlet Multizone Assembly.
P/N 5053-0004	5 Outlet Multizone Assembly.
P/N 5053-0005	6 Outlet Multizone Assembly.



6 Outlet Multizone Valve Assembly Shown

SK2459



ALL ZOELLER ON-SITE WASTEWATER PRODUCTS MUST BE INSTALLED IN ACCORDANCE WITH LOCAL AND/OR STATE PLUMBING AND/OR HEALTH DEPARTMENT CODES.

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

Sheet: 1 of 2
Property ID: 199-352-14PO
Lot #: 139
File #: 69468
AppID: 2546

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary of Lake Wylie
Address: 11104 Limehurst Pl., Charlotte, NC 28278
Proposed Facility: Residence
Design Flow (.1949): 2400 gpd
Location of Site: Little Kern Lane
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

Applicant: P.Penninger
Date Evaluated: 7/31/2007
Property Size:
Property Recorded:

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	Profile Class & LTAR
1	LS,20	0-3	GR/SCL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48	NA	NONE	PS,IV
		3-32	SBK/C	FI/S/P/SEXP					.3 GPD/FT^2
		32-48	SBK/CL	FR/S/P/SEXP					
2	"	0-5	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		5-48	SBK/C	FI/S/P/SEXP					
3	"	0-12	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		12-48	SBK/C	FI/S/P/SEXP					
4	"	0-40	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		40-48	SBK/C	FI/S/P/SEXP					
					SITE LTAR				.3 GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IV a	IV a
Site LTAR	.3 gpd/ft2	.3 gpd/ft2

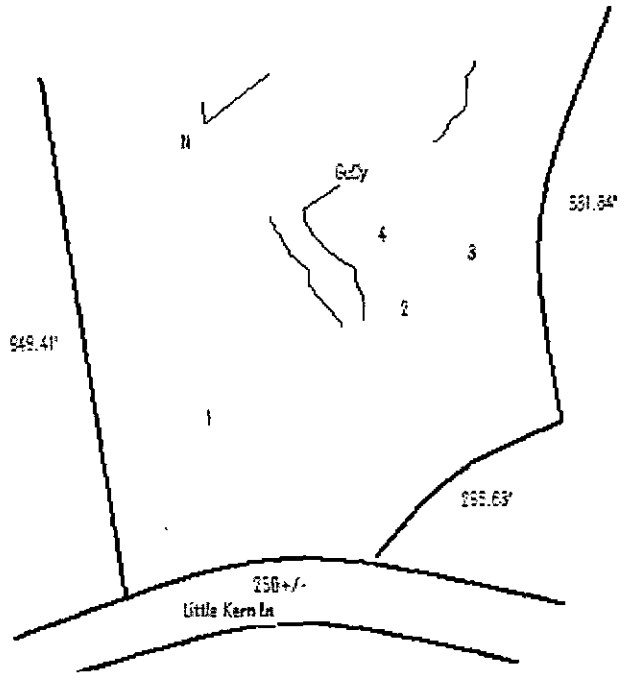
Other Factors (.1946): None
Soil Evaluation By: Chris Sherrill, RS, LSS
Others Present: P.Penninger-S&ME
Site Classification (.1948): PS
Site Evaluation By: Chris Sherrill, RS, LSS
Others Present: P.Penninger-S&ME

COMMENTS: 100% Repair Area Required FILE #: 6946B

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
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FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
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VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



FILE NUMBER: 6946B

Revised On: January 3, 2007

APPLICATION NUMBER: 2546

SEPTIC FEE: 200.00
DATE: 7/25/07
CLK 10547

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

WELL FEE: _____
DATE: _____

1. SEPTIC TYPE APPLICATION: ☐ NONE ☒ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFIED PLOT PLAN

2. WELL / TYPE APPLICATION: ☒ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

3. JOB LOCATION INFORMATION:

TAX PARCEL NUMBER: 199-352-14 P.O.
STREET ADDRESS: Little Kern Lane
CITY: Charlotte
STATE: NC ZIP: 28278
SUBDIVISION NAME: The Sanctuary of Lake Wylie
LOT #: 139 LOT SIZE (acres): 12.64+
TOWNSHIP:

☒ 0-MECKLENBURG ☐ 3-CORNELIUS ☐ 6-HUNTERSVILLE
☐ 1-CHARLOTTE ☐ 4-PINEVILLE ☐ 7-MINT HILL
☐ 2-DAVIDSON ☐ 5-MATTHEWS

4. BUILDING INFORMATION:

BUILDING TYPE:

☐ SINGLE MOBILE HOME ☐ MODULAR HOME
☐ DOUBLE WIDE ☐ MULTIPLE FAMILY
☒ HOUSE ☐ OTHER _____

HEATED SQUARE FOOTAGE: ~ 10000 s.f.
NUMBER OF BEDROOMS: 12
NUMBER OF OCCUPANTS: 24 max
FOUNDATION TYPE:

☐ CONCRETE SLAB ☒ BASEMENT WITH PLUMBING
☐ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

5. IF PLANNING TO EXPAND OR ALTER THE EXISTING 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 ☐ PUBLIC WELL ☐ PRIVATE WELL ☐ SHARED WELL ☐ SPRING

7. PROPOSED USE OF WELL: ☒ N/A ☐ IRRIGATION ☐ POTABLE ☐ GEOTHERMAL ☐ OTHER

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

	☒ ANY TYPE	☐ CONVENTIONAL	☒ ACCEPTED	☒ INNOVATIVE	☒ ALTERNATIVE	☐ OTHER
8A. RANK:	___	___	1	2	3	___

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 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

10. PROPERTY OWNER:

NAME: The Sanctuary of Lake Wylie
ADDRESS: 11104 Limehurst PL.
CITY: Charlotte
STATE: NC ZIP: 28278
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-295-1638 FAX:

11. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Paul Penninger, SFME
ADDRESS: 385 Timber Rd, St. 104
CITY: Mooresville
STATE: NC ZIP: 28115
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-996-6038 FAX: 704-662-8735

12. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? N/A
13 WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? May 2007

14. SEPTIC SYSTEM PERMIT APPLICATION SIGNATURE SECTION:

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 60 months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

Karen M. Wallace 7-20-07
Property Owner's or Owner's Legal Representative Signature Date
for Paul Penninger

15. WELL PERMIT APPLICATION SIGNATURE SECTION:

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 12 months from the date of issuance.

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

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

MAP - NOT TO SCALE

KE WYLIE

WITHERS COVE

WILDLIFE

SHOPTON RD.

GIRL SCOUT RD.

ISLAND POINT RD.

SITE

LAKE WYLIE

HWY. 49

Now or Formerly
Dexter R. Yager,Sr
Map Book 26-979

FLYING EAGLE LANE
SR 1378
60' PUBLIC R/W

20' SWE

20' SWE

100' BUFFER

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C41	375.00	237.22	233.30	S56°44'57"E	36°14'41"
C42	375.00	14.56	14.56	N37°30'51"W	2°13'31"
C46	70.00	24.12	24.00	N21°24'33"W	19°44'40"
C53	461.37	221.52	219.40	N49°21'39"E	27°30'34"
C54	371.63	68.44	68.35	N40°52'56"E	10°33'09"
C55	340.21	256.57	250.53	S84°03'17"E	43°12'31"

LINE TABLE		
LINE	LENGTH	BEARING
L9	50.33	N58°00'23"E
L10	40.04	N14°10'01"E
L11	36.36	N03°55'17"W
L12	14.29	N14°48'28"W
L13	56.45	N35°11'52"W
L14	59.40	N38°54'56"W
L15	8.49	S77°09'33"E
L16	16.76	S65°03'22"E
L17	43.73	S54°31'12"E
L18	43.73	S75°35'31"E
L19	47.99	S65°03'22"E
L20	20.00	S65°03'23"E
L21	47.64	S59°44'18"E
L22	96.87	N85°27'18"E
L23	41.99	S83°14'36"E
L24	50.82	S79°52'34"E
L25	22.86	S76°57'32"E
L26	28.64	N67°07'13"E
L27	15.06	S87°08'39"E
L28	18.89	S87°08'39"E
L29	25.29	N80°44'16"E

NOTES.....

IRON PINS ON ALL CORNERS UNLESS OTHERWISE NOTED

ALL MEDIANS AND ISLANDS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION, DEVELOPER, OR HIS ASSIGNS.

COMMON OPEN SPACE TO BE MAINTAINED BY THE HOME OWNERS

ALL HARD SURFACE & SOFT SURFACE TRAILS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE SANCTUARY PROPERTY OWNERS ASSOCIATION, OR IT'S ASSIGNS.

THE PURPOSE OF THE STORM DRAINAGE EASEMENT IS TO PROVIDE STORM WATER CONVEYANCE AND ANY STRUCTURES AND/OR OBSTRUCTIONS TO STORM WATER FLOW IS PROHIBITED.

AREAS CALCULATED BY COORDINATE METHOD

NO ON-SITE DEMOLITION OR STUMP BURIAL WILL BE ALLOWED. ALL MATERIALS WILL BE DISPOSED OF IN AN APPROVED OFF-SITE LANDFILL.

THERE WILL BE NO SANITARY SEWER, STORM DRAINAGE, AND/OR EROSION CONTROL FACILITIES IN THE 100'

PROPERTY ZONED MX-1 REZONING PETITION # 2003-024
MIN FRONT SETBACK 20'
MINIMUM SIDEYARD SETBACK 5'
MINIMUM REAR YARD 30'

NO DWELLING UNITS MAY BE LOCATED WITHIN THE REQUIRED SHORELINE BUFFER THE 50' ADDITIONAL SHORELINE BUFFER OR THE RESTRICTED ZONE.

MAXIMUM IMPERVIOUS COVER WILL BE LIMITED TO 12% ON THESE LOTS

SANCTUARY BUFFER ZONE NOTES:
A PORTION OF THESE LOTS ARE WITHIN THE 50 FOOT LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA THE AREAS IDENTIFIED REPRESENT A 50' UNDISTURBED VEGETATIVE BUFFER ADJACENT TO THE SHORELINE OF LOWER LAKE WYLIE AND MEASURED FROM THE FULL POND ELVEATION (570 FOOT CONTOUR). NO CLEARING, NO SELECTIVE THINNING, REMOVAL OF UNDERGROWTH OR 2" CALUPER TREE IS ALLOWED AND ONLY DEAD TREES MAY BE REMOVED IN THIS AREA. THIS AREA SHALL CONFORM TO THE CHARLOTTE CODE SECTION 10.7 LOWER LAKE WYLIE WATERSHED OVERLAY.

TREE SAVE ARE PER THE REQUIREMENTS OF THE CITY OF CHARLOTTE TREE ORDINANCE, CHAPTER 21 CITY CODE.

50' CLASS C BUFFER

L9 L10 L11 L12 L13 L14 L15 L16 L17 L18 L19 L20 L21 L22 L23 L24 L25 L26 L27 L28 L29

N56°35'51"E 206.40'

284.61' TOTAL

78.41'

CHORD: N11°52'39"W 65.86' R: 100.00' 67.11'

30' REARYARD

N31°16'55"W 103.82'

C46 R: 70.00' 24.12'

N63°06'57"E 143.24'

5' SIDEYARD

C53 R: 461.37' 221.52'

5' SIDEYARD

N35°36'22"E 97.59'

C54 R: 371.63' 68.44'

COS

C55 R: 340.01' 256.57'

5' SIDEYARD

N74°20'28"E 36.08'

50' LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA

50' ADDITIONAL SHORELINE BUFFER

N07°20'55"E 121.67'

TREE SAVE AREA & RESTRICTED ZONE

100' House 100'

S65°03'25"E 52.05'

S60°17'37"E 31.24'

S55°05'00"E 57.85'

N85°27'18"E

S.T.

P.T.

S83°14'36"E 57.85'

N67°07'13"E 12.94'

S79°52'34"E 22.07'

S87°08'39"E 38.40'

N80°44'16"E 31.64'

CHORD: S83°30'35"E R: 1530.16' 53.82'

S82°25'25"E 83.56'

205.41'

139
550,973 SF
MINIMUM
FFE=573.00'

DRIVEWAY

20' SETBACK

C41 R: 375.00' 237.22'

LITTLE KERN LANE
50' PUBLIC R/W

141
THE SANCTUARY
PHASE 4 MAP 2
SHEET 2
UNRECORDED

NC GRID - NAD 83 - SPC 97

CENTRAL GATE VALVE BOX

2" SUPPLY LINE

(5@70')

R66'

REPAIR

WHITE FLAGS
PINK FLAGS
ORANGE FLAGS
RED FLAGS

O=1.4'
P=14.1'

5' SIDEYARD

N34°45'35"E 949.41' TOTAL

744.00'

138
THE SANCTUARY
PHASE 4 MAP 2
SHEET 2
UNRECORDED

196
97
101
394

70 x4 280 115 1895

115 IX 3 345 92 437

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

EGEND .....
OS - COMMON OPEN SPACE
DE - STORM DRAINAGE EASEMENT
ME - SIDEWALK EASEMENT
/W - RIGHT-OF-WAY
FE - FLOOD PROTECTION ELEVATION
SAME AS MINIMUM FINISHED FLOOR ELEVATION)
MPE - STORM WATER PROTECTION ELEVATION

Surveyed Location Fema Floodplain
oundary Line Per Fema Community
FEMA FIRM PANELS 370158 0222E,
0221E & 0242E DATED 2-4-2004.

NORTH CAROLINA PROFESSIONAL SEAL L-3954 LAND SURVEYOR JOSEPH E. WHALEY JR.

SEPTIC EXHIBIT MAP FOR LOT 139

SCALE	TOWNSHIP	COUNTY	STATE	20' SWE DATE
1" = 100'	STEELE CREEK	MECK.	N.C.	05/18/07

LITTLE KERN LANE

LOT 139, THE SANCTUARY PH.4 MAP 2 SHEET 2

SURVEYED RH
MAPPED RAS

YARBROUGH - WILLIAMS & HOULE, INC.
Planning • Surveying • Engineering
730 Windsor Oak Court Charlotte NC 28273
P.O. BOX 7007 Charlotte NC 28241
704.556.1990 704.556.0505(fax)

MAP RECORDED

DEED RECORDED 16493-360

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

Permit #: **30001903** GWS File #: **6946B**

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.
- This type of repair system requires the installation of a pump tank and all associated components. This type of system will require routine inspections by our office. The system owner is responsible for all fees associated with these inspections.
- This type of repair system requires the property owner to obtain a contract with a Certified Operator to perform routine inspections and maintenance on the system.
- *This type of repair system requires periodic inspections by our office. The system owner is responsible for* any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.

VOID

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, 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 an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Sherrill

Signature: Christopher M Sherrill

Date Issued: 6/13/2007

Owner/Legal Agent: Patrick Mitchell
Print Name

Signature: Patrick Mitchell

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

Permit #: **30001903** GWS File #: **6946B** Tax Parcel #: **199-352-14**

- 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. The Construction Authorization is **NOT** transferable. 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.

VOID

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 6/13/2012

Type of Installation: Residential - New System Lot Number: 139

Structure Type: HOUSE Size (ft^2): 4500 # Bedrooms: 5 # Occupants: 10

Building Foundation: Basement With Plumbing Water Supply: Municipal

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

Initial System Specifications:

Design Flow (gpd):	600	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	999	Total Trench Length (ft):	333
Maximum Trench Depth (in):	30	Depth of Media (in):	24	Distribution Device:	Manifold (LPP Distri		

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

Repair System Specifications:

Design Flow (gpd):	600	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1000	Total Trench Length (ft):	333
Maximum Trench Depth (in):	30	Depth of Media (in):	24	Distribution Device:	Manifold (LPP Distri		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, 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 an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Shamill Owner/Legal Agent: Patrick Mitchell
Print Name

Signature: Signature:

Date Issued: 6/13/2007

S&ME

May 9, 2007

Mr. James Martin
The Sanctuary at Lake Wylie
11104 Limehurst Place
Charlotte, North Carolina 28278

Reference: **Request for a Septic Improvement Permit for Lot 139 at The Sanctuary at Lake Wylie Phase 4b**
Mecklenburg County Health Department (MCHD) File # 6946B

Dear Mr. Martin,

The Sanctuary at Lake Wylie is requesting an Improvement Permit for the above referenced lot. Mr. Bill Marlin has evaluated the soils (see attached MCHD soil sheets) and S&ME, Inc. has flagged the system and repair on the lot. The septic lines have been located by your surveyor and are shown on the attached maps provided by YW&H, Inc. The attached sketch and specifications are not an Improvement Permit and are intended only to assist the MCHD in permitting the referenced lot at The Sanctuary.

We understand that a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The buyer will apply for the ATC. If the buyer's house pad does not fit in the "building envelope" shown on the Improvement Permit, we understand that the proposed system may have to be modified prior to your office issuing the ATC. **No grading shall take place on the lot prior to obtaining the ATC from the MCHD.**

Tri-County Wastewater (TCWW) is under contract to supply maintenance services for each septic system installed at The Sanctuary. TCWW will have a list of preferred septic contractors for the subdivision and will also have requirements for septic system installation that are greater than the MCHD and State requirements. It will be the responsibility of TCWW to enforce any requirements above State requirements or the MCHD conditions on the Improvement Permit.

S&ME, INC. / 385 Timber Road, Suite 104 / Mooresville, NC 28115-7899 / *p* 704.662.8625 *f* 704.662.8735 / www.smeinc.com

Please review the attached system sketch and design specifications for the Improvement Permit. Any additions or revisions you feel are necessary can be made on the Improvement Permit. Please call in you have and questions or comments.

Sincerely,

S&ME, Inc.

Paul G. Penninger, LSS
Licensed Soil Scientist

Rob Willcox, LSS
Natural Resources Department Manager

Attachments:
1. System Specifications
2. Site Plan
3. MCHD Soil Evaluation

Copy: Mr. Philo Walker, R.S.
MCHD

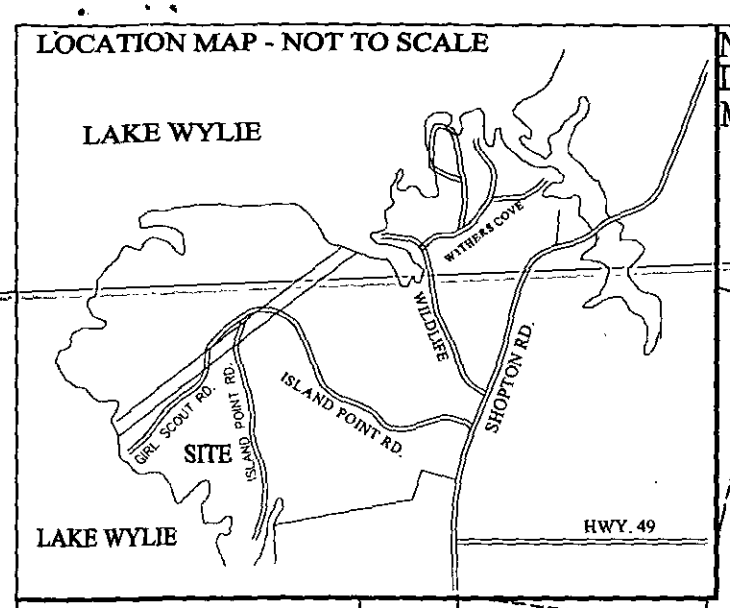
S&ME

Design Specifications for Lot 139 at The Sanctuary
MCHD File # 6946B

Daily Design Flow:	600 gpd
Number Bedrooms:	5 bedroom
Basement or Crawl Space:	Basement
Septic Tank Size:	1500 gal
Pump Tank Size:	1500 gal
Primary System Loading Rate:	**0.3 gpd/ft^2**
Primary System:	**LP PPBPS**
Number and length of laterals:	5 @ 70 ft. endfed
Total ft. of primary system:	350 ft.
Number of T&J Panels:	16 per 70 ft. line for a total of 80 panels
Flow Rate through system:	40 gpm – use 5/32 in. holes with 3 ft. head pressure
Pump Requirements:	to be calculated by installer when specific house and pump tank locations are available
Dosing Volume:	approx. 288 gal. – (3.6 gal per panel)*
Depth of effluent pumped per dose:	calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Check Valve:	yes
Siphon break hole:	yes
Repair System Loading Rate:	0.3 gpd/ft^2
Repair System:	LP PPBPS
Total ft. of repair	345 ft. (334 required)

Notes: Before placement of cap block, one panel on each line, near the center of the field should be observed filling to male certain that it does not overflow the top chamber into the air chambers. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

S&ME, INC. / 385 Timber Road, Suite 104 / Mooresville, NC 28115-7899 / *p* 704.662.8625 *f* 704.662.8735 / www.smeinc.com



Now or Formerly
Dexter R. Yager,Sr
Map Book 26-979

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C41	375.00	237.22	233.30	S56°44'57"E	36°14'41"
C42	375.00	14.56	14.56	N37°30'51"W	2°13'31"
C46	70.00	24.12	24.00	N21°24'33"W	19°44'40"
C53	461.37	221.52	219.40	N49°21'39"E	27°30'34"
C54	371.63	68.44	68.35	N40°52'56"E	10°33'09"
C55	340.21	256.57	250.53	S84°03'17"E	43°12'31"

LINE TABLE		
LINE	LENGTH	BEARING
L9	50.33	N58°00'23"E
L10	40.04	N14°10'01"E
L11	36.36	N03°55'17"W
L12	14.29	N14°48'28"W
L13	56.45	N35°11'52"W
L14	59.40	N38°54'56"W
L15	8.49	S77°09'33"E
L16	16.76	S65°03'22"E
L17	43.73	S54°31'12"E
L18	43.73	S75°35'31"E
L19	47.99	S65°03'22"E
L20	20.00	S65°03'23"E
L21	47.64	S59°44'18"E
L22	96.87	N85°27'18"E
L23	41.99	S83°14'36"E
L24	50.82	S79°52'34"E
L25	22.86	S76°57'32"E
L26	28.64	N67°07'13"E
L27	15.06	S87°08'39"E
L28	18.89	S87°08'39"E
L29	25.29	N80°44'16"E

NOTES.....

IRON PINS ON ALL CORNERS UNLESS OTHERWISE NOTED

ALL MEDIANS AND ISLANDS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION, DEVELOPER, OR HIS ASSIGNS.

COMMON OPEN SPACE TO BE MAINTAINED BY THE HOME OWNERS

ALL HARD SURFACE & SOFT SURFACE TRAILS WILL BE THE MAINTENANCE RESPONSIBILITY OF THE SANCTUARY PROPERTY OWNERS ASSOCIATION, OR IT'S ASSIGNS.

THE PURPOSE OF THE STORM DRAINAGE EASEMENT IS TO PROVIDE STORM WATER CONVEYANCE AND ANY STRUCTURES AND/OR OBSTRUCTIONS TO STORM WATER FLOW IS PROHIBITED.

AREAS CALCULATED BY COORDINATE METHOD

NO ON-SITE DEMOLITION OR STUMP BURIAL WILL BE ALLOWED. ALL MATERIALS WILL BE DISPOSED OF IN AN APPROVED OFF-SITE LANDFILL.

THERE WILL BE NO SANITARY SEWER, STORM DRAINAGE, AND/OR EROSION CONTROL FACILITIES IN THE 100'

PROPERTY ZONED MX-1 REZONING PETITION # 2003-024
MIN FRONT SETBACK 20'
MINIMUM SIDEYARD SETBACK 5'
MINIMUM REAR YARD 30'

NO DWELLING UNITS MAY BE LOCATED WITHIN THE REQUIRED SHORELINE BUFFER THE 50' ADDITIONAL SHORELINE BUFFER OR THE RESTRICTED ZONE.

MAXIMUM IMPERVIOUS COVER WILL BE LIMITED TO 12% ON THESE LOTS

SANCTUARY BUFFER ZONE NOTES:
A PORTION OF THESE LOTS ARE WITHIN THE 50 FOOT LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA THE AREAS IDENTIFIED REPRESENT A 50' UNDISTURBED VEGETATIVE BUFFER ADJACENT TO THE SHORELINE OF LOWER LAKE WYLIE AND MEASURED FROM THE FULL POND ELVEATION (570 FOOT CONTOUR). NO CLEARING, NO SELECTIVE THINNING, REMOVAL OF UNDERGROWTH OR 2" CALLIPER TREE IS ALLOWED AND ONLY DEAD TREES MAY BE REMOVED IN THIS AREA. THIS AREA SHALL CONFORM TO THE CHARLOTTE CODE SECTION 10.7 LOWER LAKE WYLIE WATERSHED OVERLAY.

TREE SAVE ARE PER THE REQUIREMENTS OF THE CITY OF CHARLOTTE TREE ORDINANCE, CHAPTER 21 CITY CODE.

FLYING EAGLE LANE
SR 1378
60' PUBLIC R/W

20' SWE

100' BUFFER

50' CLASS C BUFFER

N56°35'51"E 206.40' 284.81'TOTAL 78.41'

R: 70.00' C46 24.12 N63°06'57"E 143.24'

C53 R: 461.37' 221.52' 5' SIDEYARD

N35°36'22"E 97.59'

C54 R: 371.63' 68.44'

C55 R: 340.21' 256.57' 5' SIDEYARD

N31°16'55"W 103.92'

30' REARYARD

CHORD: N11°52'59"W 65.86' R: 100.00' 67.11'

50' LOWER LAKE WYLIE WATERSHED OVERLAY DISTRICT CRITICAL AREA

N07°20'55"E 121.81'

50' ADDITIONAL SHORELINE BUFFER

TREE SAVE AREA & RESTRICTED ZONE

100' House 100'

S65°03'25"E 22.03' S80°17'12"E 37.24' S5°05' N85°27'18"E

S83°14'36"E 57.82' S79°52'34"E 72.07'

N67°07'13"E 12.94'

S87°08'39"E 58.40'

N80°44'16"E 31.64'

CHORD: S83°30'35"E 53.16' R: 100.00' 53.32'

S68°25'25"E 83.56'

205.41'

139
550,973 SF
MINIMUM FPE=573.00'

712'

DRIVEWAY

S.T.

P.T.

2" SUPPLY LINE

CENTRAL GATE VALVE BOX

(5@70')

RED FLAGS PINK FLAGS WHITE FLAGS ORANGE FLAGS

(REPAIR 30115')

5' SIDEYARD

N34°45'35"E 949.41'TOTAL 744.00'

138
THE SANCTUARY
PHASE 4 MAP 2
SHEET 2
UNRECORDED

N74°20'28"E 38.06'

LITTLE KERN LANE
50' PUBLIC R/W
R: 375.00'

237.22' 23.41' SETBACK

20' SWE

141
THE SANCTUARY
PHASE 4 MAP 2
SHEET 2
UNRECORDED

NC GRID - NAD 83 - SPC 97

LEGEND .....
COS - COMMON OPEN SPACE
SDE - STORM DRAINAGE EASEMENT
SWE - SIDEWALK EASEMENT
R/W - RIGHT-OF-WAY
FPE - FLOOD PROTECTION ELEVATION (SAME AS MINIMUM FINISHED FLOOR ELEVATION)
SWPE - STORM WATER PROTECTION ELEVATION

Surveyed Location Fema Floodplain Boundary Line Per Fema Community
FEMA FIRM PANELS 370158 0222E, 0221E & 0242E DATED 2-4-2004.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NORTH CAROLINA PROFESSIONAL SEAL L-3954 LAND SURVEYOR JOSEPH E. WHALEY JR.

SEPTIC EXHIBIT MAP FOR LOT 139

SCALE	TOWNSHIP	COUNTY	STATE	20' SWE DATE
1" = 100'	STEELE CREEK	MECK.	N.C.	05/18/07

LITTLE KERN LANE
LOT 139, THE SANCTUARY PH.4 MAP 2 SHEET 2

SURVEYED RH
MAPPED RAS

YARBROUGH - WILLIAMS & HOULE, INC.
Planning • Surveying • Engineering
730 Windsor Oak Court Charlotte NC 28273
P.O. BOX 7007 Charlotte NC 28241
704.556.1990 704.556.0505(fax)

MAP RECORDED
DEED RECORDED 16493-360

Division of Environmental Health
On-site Wastewater Section

Property ID: PO 199-352-14
Lot #: 139
File #: 69468
AppID: 1903

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary of Lake Wylie
Address: 11104 Limehurst Place, Charlotte, N. C. 28278
Proposed Facility: Residence Design Flow (.1949): 600gpd
Location of Site: Nine Eagles Lane
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

Applicant: S & ME- P. Penninger
Date Evaluated: 5/15/07
Property Size: .5a. Inv.
Property Recorded:

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr Horiz	Profile Class & LTAR
1	LS, 20	0-4	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		4-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
2	LS, 25	0-3	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	PS, IV
		3-30	SBK/C	FI/SEXP/S/P					.325GPD/FT^2
		30-48	SBK/CL	FR/SEXP/SS/SP					
3	"	0-5	GR/SCL	"	"	"	"	"	PS, IV
		5-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
					SITE LTAR .3GPD/FT^2				

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)		
Site LTAR		

Other Factors (.1946):
Soil Evaluation By: W. R. Marlin, LSS, 5/16/2007
Others Present:
Site Classification (.1948):
Site Evaluation By:
Others Present:

COMMENTS:

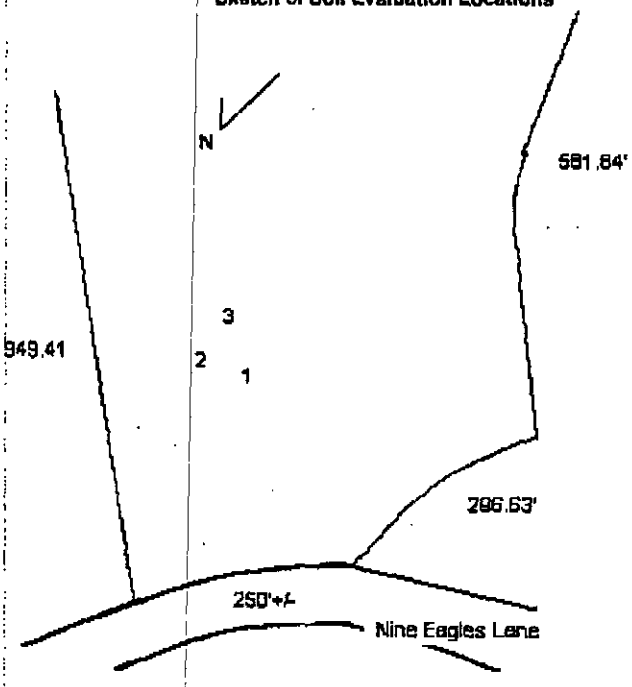
FILE #: 6946B

100% repair, borings made in proposed drainfield area

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	*SL-Sandy Loam*	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				*ABK-Angular Blocky*
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



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

Sheet: 1 of 2
Property ID: PO 199-352-14
Lot #: 139
File #: 6946B
AppID: 1903

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: The Sanctuary of Lake Wylie
Applicant: S & ME- P. Penninger
Address: 11104 Limehurst Place, Charlotte, N. C. 28278
Date Evaluated: 5/15/2007
Proposed Facility: Residence
Design Flow (.1949): 600gpd
Property Size: .5a. Inv.
Location of Site: Nine Eagles Lane
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

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	Profile Class & LTAR
1	LS, 20	0-4	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		4-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
2	LS, 25	0-3	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	PS, IV
		3-30	SBK/C	FI/SEXP/S/P					.325GPD/FT^2
		30-48	SBK/CL	FR/SEXP/SS/SP					
3	"	0-5	GR/SCL	"	"	"	"	"	PS, IV
		5-48	SBK/C	FI/SEXP/S/P					.3GPD/FT^2
					SITE LTAR .3GPD/FT^2				

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IV a	IV a
Site LTAR	.3 gpd/ft2	.3 gpd/ft2

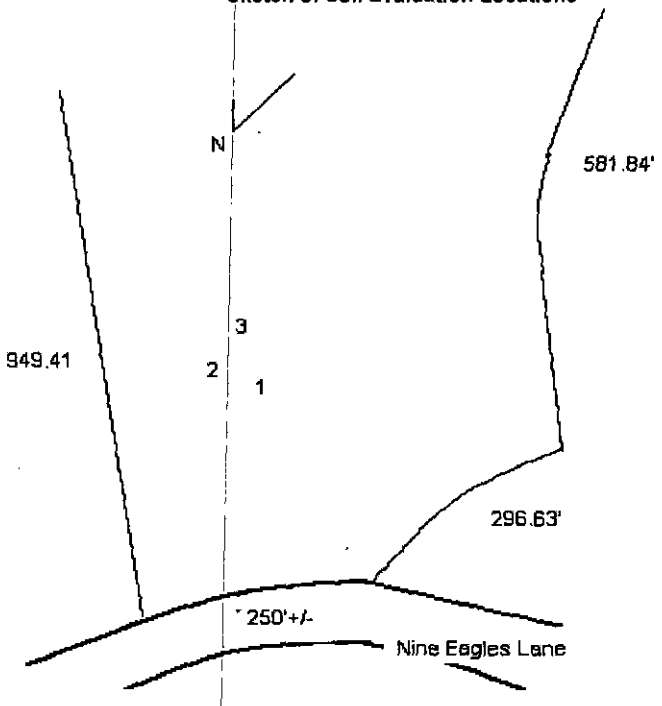
Other Factors (.1946):
Soil Evaluation By: W. R. Marlin, LSS, 5/16/2007
Others Present:
Site Classification (.1948): PS
Site Evaluation By: C.Sherrill
Others Present: P.Penninger

COMMENTS:
100% repair, borings made in proposed drainfield area

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	*SEXP-Slightly Expansive*
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



FILE NUMBER: 6946B

Revised On: January 3, 2007

APPLICATION NUMBER: 1903

SEPTIC FEE: 200
DATE: 2/9/07
CK 10182

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

WELL FEE: _____
DATE: _____

1. **SEPTIC / TYPE APPLICATION:** ☐ NONE ☒ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFIED PLOT PLAN

2. **WELL / TYPE APPLICATION:** ☒ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

3. **JOB LOCATION INFORMATION:**
TAX PARCEL NUMBER: 19935214-PO
STREET ADDRESS: Nine Eagles Ln.
CITY: Charlotte
STATE: NC ZIP: 28278
SUBDIVISION NAME: The Sanctuary of Lake Wylie
LOT #: 139 LOT SIZE (acres): 13.19
TOWNSHIP:
☒ 0-MECKLENBURG ☐ 3-CORNELIUS ☐ 6-HUNTERSVILLE
☐ 1-CHARLOTTE ☐ 4-PINEVILLE ☐ 7-MINT HILL
☐ 2-DAVIDSON ☐ 5-MATTHEWS

4. **BUILDING INFORMATION:**
BUILDING TYPE:
☐ SINGLE MOBILE HOME ☐ MODULAR HOME
☐ DOUBLE WIDE ☐ MULTIPLE FAMILY
☒ HOUSE ☐ OTHER _____
HEATED SQUARE FOOTAGE: 4500
NUMBER OF BEDROOMS: 5
NUMBER OF OCCUPANTS: 10
FOUNDATION TYPE:
☐ CONCRETE SLAB ☒ BASEMENT WITH PLUMBING
☐ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

5. **IF PLANNING TO EXPAND OR ALTER THE EXISTING 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 ☐ PUBLIC WELL ☐ PRIVATE WELL ☐ SHARED WELL ☐ SPRING

7. **PROPOSED USE OF WELL:** ☒ N/A ☐ IRRIGATION ☐ POTABLE ☐ GEOTHERMAL ☐ OTHER

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

8A. **RANK:** ☒ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

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 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

10. **PROPERTY OWNER:**
NAME: The Sanctuary of Lake Wylie
ADDRESS: 11104 Limehurst Pl.
CITY: Charlotte
STATE: NC ZIP: 28278
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-295-1638 FAX:

11. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**
NAME: Paul Penninger, S+ME
ADDRESS: 385 Timber Rd, St. 104
CITY: Mooresville
STATE: NC ZIP: 28115
HOME PHONE: WORK PHONE:
MOBILE PHONE: 704-996-6330 FAX: 704-662-8735

12. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** N/A
13 **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** May, 2007

14. **SEPTIC SYSTEM PERMIT APPLICATION SIGNATURE SECTION:**
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 60 months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

02/01/07
Property Owner's or Owner's Legal Representative Signature Date

15. **WELL PERMIT APPLICATION SIGNATURE SECTION:**
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 12 months from the date of issuance.

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

☐ SURVEY PLAT TO SCALE SUBMITTED ☒ SCALED SITE PLAN SUBMITTED ☐ UN-SCALED SITE PLAN SUBMITTED