Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 7336B WASPS App #: 2731

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: 5			
	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) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.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 ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.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 ☐
	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 ☐

II. 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: IP FOR 15105 BIRUNG RD. (FILE 7336B)

IA issued date: _____

OP issued date: _____

Review performed by: JCR Date performed: 3/19/08

BM

FILE NUMBER: 73368 Revised On: August 31, 2007 APPLICATION NUMBER: 2731

SEPTIC FEE: 200.00
DATE: 9/20/07 CHK # 10634

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: 199 331 40
STREET ADDRESS: 15105 Birling Rd
CITY: Charlotte
STATE: NC ZIP:
SUBDIVISION NAME: NA
LOT #: #16 Sec 41 LOT SIZE (acres): 1.03
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: 4600
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 8
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: ____ ____ ____ ____ ____

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

10. PROPERTY OWNER:

NAME: Birling Rd. Partners
ADDRESS: 17224 Doe West Dr
CITY: Cornelius
STATE: NC ZIP: 28278
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

11. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Toney Jr Cobb - S+M E
ADDRESS: 304 Timber Rd
CITY: Mooresville
STATE: NC ZIP: 28117
HOME PHONE: 7 WORK PHONE:
MOBILE PHONE: 704 582-9219 FAX:

12. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? _____

13 WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? _____

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.

Toney C Cobb Jr 9/20/07

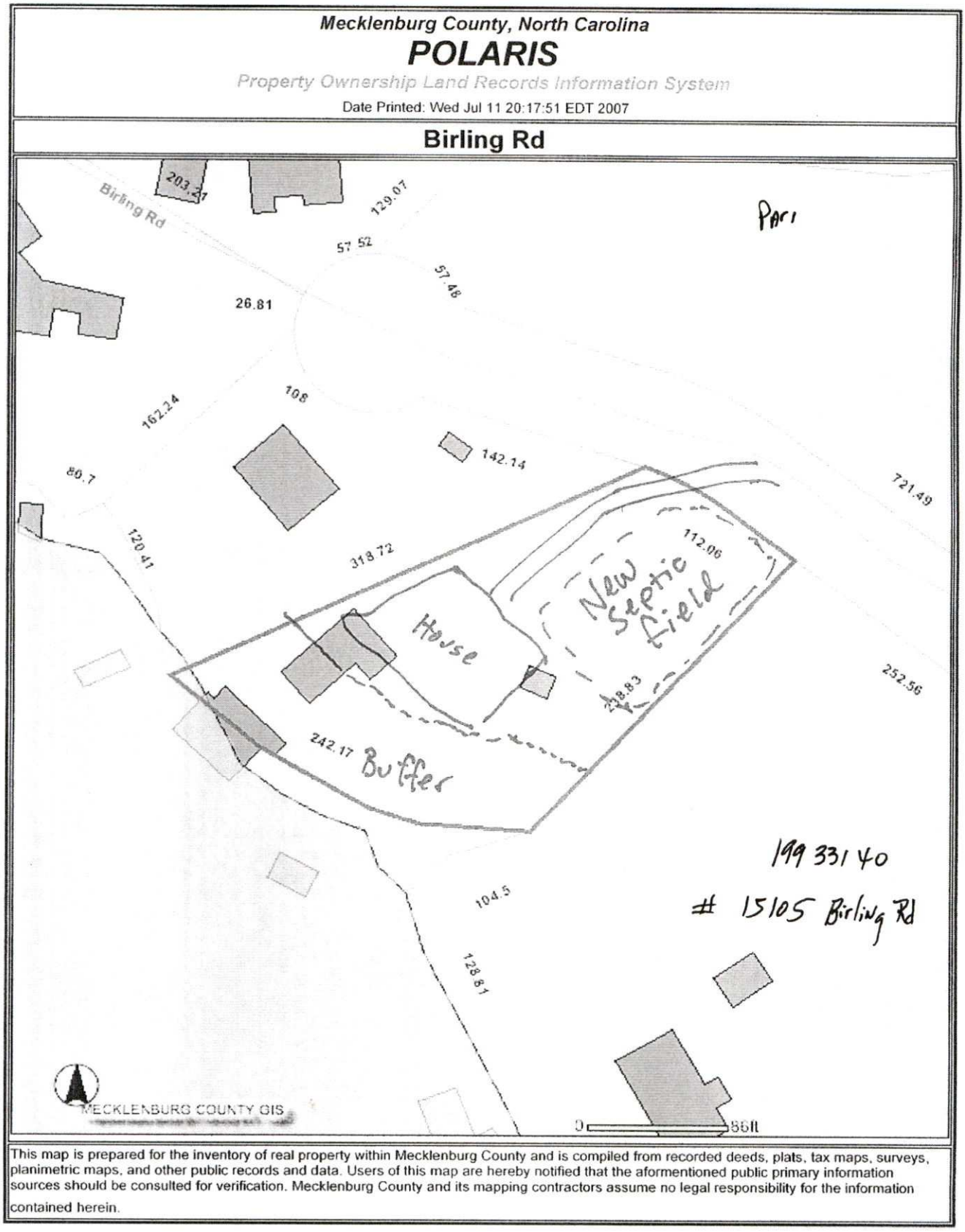
Property Owner's or Owner's Legal Representative Signature Date

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



This map is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no legal responsibility for the information contained herein.

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

Sheet: 1 of 2
Property ID: 199-341-40
Lot #:
File #: 7336B
AppID: 2731

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Birling Rd Partners
Applicant: Toney Jacobs--S&ME
Address: 17224 Due West Dr., Charlotte, NC 28278
Date Evaluated: 10/22/2007
Proposed Facility: Residence
Design Flow (.1949): 480 gpd
Property Size: 1.03a
Location of Site: 15105 Birling Rd
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] 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,10	0-6	GR/L	FR/SS/SP/SEXP	>38" TO SOIL WETNESS	38	N/A	NONE	PS,IV
		6-38	SBK/C	FI/S/P/SEXP					.3 GPD/FT^2
		38+	M/SAP						
2	"	0-8	GR/CL	FR/SS/SP/SEXP	>40" TO SOIL WETNESS	40	"	"	"
		8-40	SBK/C	FI/S/P/SEXP					
		40+	M/SAP						
3	"	0-8	GR/CL	FR/SS/SP/SEXP	>37" TO SOIL WETNESS	37	"	"	"
		8-37	SBK/C	FI/S/P/SEXP					
		37+	M/SAP						
4	"	0-4	GR/L	FR/SS/SP/SEXP	>36" TO SOIL WETNESS	36	"	"	"
		4-36	SBK/C	FI/S/P/SEXP					
		36+	M/SAP						
5	"	0-3	GR/L	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48	"	"	"
		3-40	SBK/C	FI/S/P/SEXP					
		40-48	SBK/SCL	FR/S/P/SEXP					
					SITE LTAR				.3 GPD/FT2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIb	IIIb
Site LTAR	.3 GPD/FT2	.3 GPD/FT2

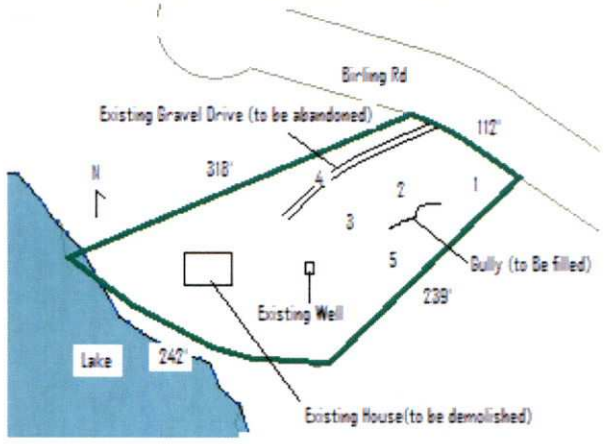
Other Factors (.1946):
Soil Evaluation By: C.Sherrill, RS, LSS
Others Present: T.Jacobs
Site Classification (.1948): PS
Site Evaluation By: C.Sherrill, RS, LSS
Others Present: None

COMMENTS: 100% Repair. Existing house to be demolished. Existing driveway to be abandoned. Existing gully to be filled.

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



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 #: **30002731** GWS File #: **7336B** Tax Parcel #: **199-331-40**

- 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):** 3/18/2013

Type of Installation: Residential - New System Lot Number: 0

Structure Type: HOUSE Size (ft^2): 4600 # Bedrooms: 4 # Occupants: 8

Building Foundation: Basement Without Plumbing Water Supply: Private Well

II. Initial System Type: Pump to Approved **System Classification:** IIIb

Initial System Specifications:

Design Flow (gpd):	480	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):	1200	Total Trench Length (ft):	400
Maximum Trench Depth (in):	24	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

III. Repair System Type: Pump to Approved **System Classification:** IIIb

Repair System Specifications:

Design Flow (gpd):	480	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):	1200	Total Trench Length (ft):	400
Maximum Trench Depth (in):	24	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

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

Signature: Christopher M Sherrill

Date Issued: 3/18/2008

Owner/Legal Agent: Tonya C Jacobs
Print Name

Signature: Tonya C Jacobs

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 #: **30002731** GWS File #: **7336B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 5 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 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 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.
- Proper well abandonment is required prior to receiving an Installation Approval from our office to install the septic system.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.

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: 3/18/2008

Owner/Legal Agent: Tonya C Jacobs
Print Name

Signature: Tonya C Jacobs

Fax Transmittal

S&ME Inc.
385 Timber Road, Suite 104
Mooresville, N.C. 28115
(704) 662-8625
www.smeinc.com

Date:	From: Tonya
To: Trevor + Chris	Fax #: (704) 662-8735
Fax #: 336-6994	Email:
Re:	# of Pages:

Comments:

GWS Septic System Design Review

GWS File #: 7336B **Approved** **Disapproved**

Design Review: TCT 3-18-08 ☒ ☐

Field Review: CMS 3/18/08 ☑ ☐

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

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S&ME

March 16, 2008

To: Chris Sherrill, R.S., LSS
Trevor Thomason, R.S.
Mecklenburg County Environmental Health

From: Toney C. Jacobs, LSS

Ref: Request for an Improvement Permit for 15105 Birling Road, off Four Horse Road
MCHD File #7336B

LKW Development is requesting an Improvement Permit for the above referenced lot. Mr. Chris Sherrill has evaluated the soils (see attached MCHD soil sheets) and S&ME has flagged the system and designated repair on the lot. The septic lines have been located by S&ME and are shown on the attached maps. The attached sketch and specifications are not an Improvement Permit and are intended to assist the MCHD in permitting referenced lot off of Shopton Road in southwest Mecklenburg County.

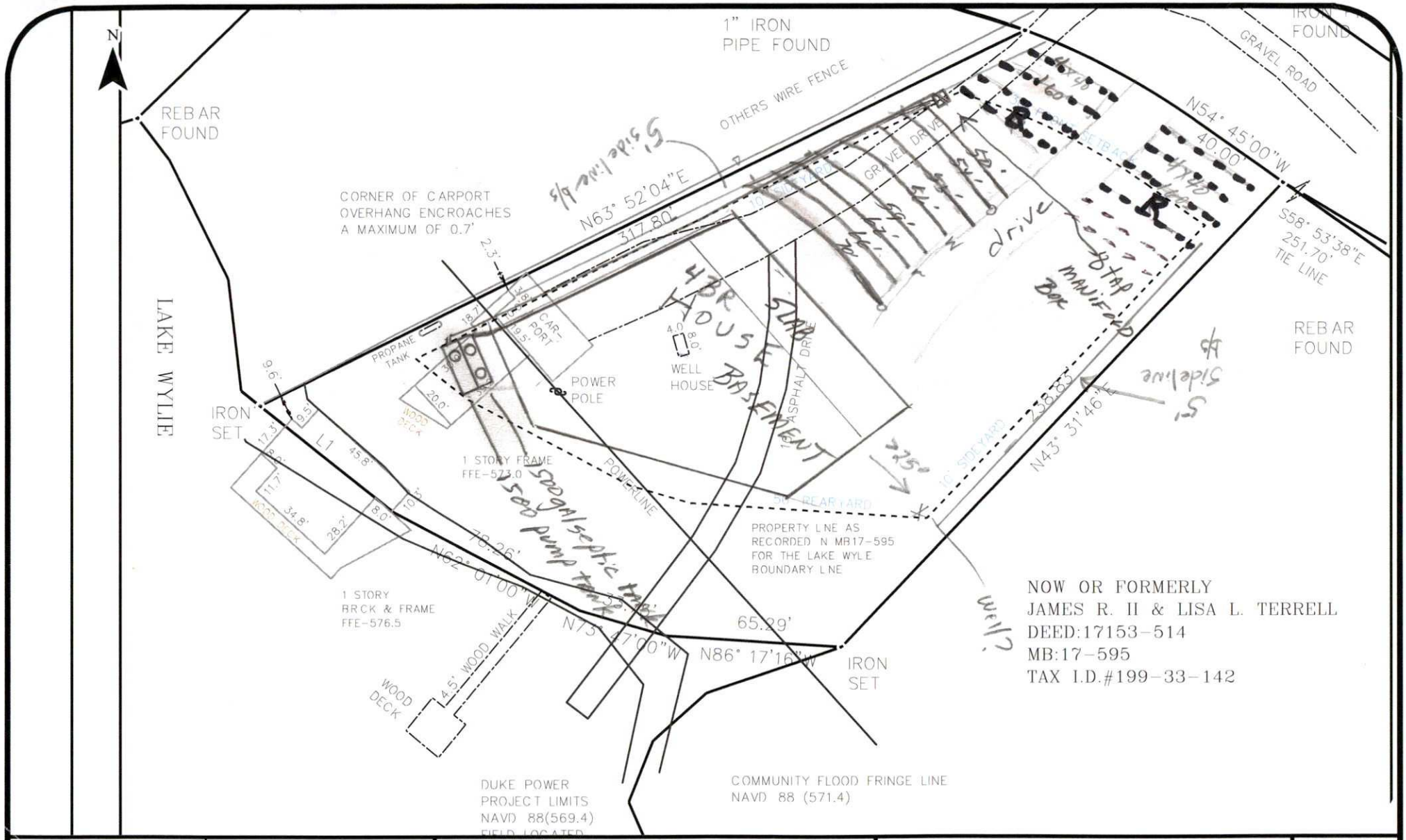
We understand that a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The builder will apply for the ATC. If the builder's house pad does not fit in the "building envelope" shown on the Improvement Permit, we understand that the proposed system may have to 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.**

Special provisions of this permit:

In the front center of the lot (see site plan) there is a gullied area (approx. 10'-15' deep). The area on the north side, next to the initial drainfield, must be cleaned of all organic matter on the surface and the topsoil with high root content must be removed. After removal, backfill with mineral soil (clay or clay loam) to even grade of the drainfield and compact this material. Lines will stop 5 feet from the fill material.

Lines go through old drive, but this area is not considered in loading. Lines also get longer as they go down slope, but the 0.3 loading is calculated to the shortest line. Longer lines downslope get slightly lesser loading.

The well must be properly abandoned prior to final permitting. New existing well permit must be obtained before well construction.



SCALE:	DATE:		
1"=50'	September, 2007		
PROJECT NO:	DRAWN BY:	CHECKED BY:	
1588-06-004	JBP	TCJ	

S&ME
WWW.SMEINC.COM

LKW Development
Steele Creek
Birling Road
Mecklenburg County, NC

FIGURE NO.
1

Design Specifications for 15105 Birling Road
MCHD file #7336B

Daily design flow:	480 gpd
Number of bedrooms:	4 bedroom
Basement or crawl space:	slab in front of house basement in rear >25' from system
Septic tank size:	1500 gal
Pump tank size:	1500 gal
Primary system loading rate:	≈ 0.3 gpd/ft^2
Primary system:	25% reduction
Number and length of laterals:	8 lines 1@ 50', 1@ 54', 1@55', 1@56', 1@ 59', 1@ 62', 1@66', 1@70' - all end fed
Total ft. of primary system	472 ft. – only 400 required for normal installation
Flow rate through system:	43.84 gpm – use ½" SCH 80 taps with 2 ft head
Pump requirements:	to be calculated by installer when specific house and pump tank locations are available
Dosing volume:	approx. 240 gal. – 2.0 doses/day at design flow with pump run time of 5.5 minutes.
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:	no
Repair system loading rate:	0.3 gpd/ft^2
Repair system:	25% reduction with pressure dosing
Total ft. of repair	400' (10 lines @ 40' each)

Pressure Manifold Design Worksheet

Tap #	Line Length (ft.)	Material (SCH PVC)	Tap Size (inch)	Flow (gpm)	Flow (ft)	Effective Loading gal/ft²/d
1	50	80	½	5.48	0.110	0.30
2	54	80	½	5.48	0.101	0.28
3	55	80	½	5.48	0.100	0.27
4	56	80	½	5.48	0.098	0.27
5	59	80	½	5.48	0.093	0.26
6	62	80	½	5.48	0.088	0.24
7	66	80	½	5.48	0.083	0.23
8	70	80	½	5.48	0.078	0.22
	472			43.84		