

9021 CANNONGATE DR

13905220

1/9/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

Groundwater & Wastewater Services
Well Project File & Data Review Worksheet

GWS File #: 62663 WASPS App #: 1164

Primary ES assigned to project: David Cornelius

Secondary ES assigned to project: Kim Garnett

Project Type: New Well ☑ Well Abandonment ☐ Major Repair ☐

Septic System Status: Permit in progress ☐ System installation completed ☑ N/A-Sewer ☐

I. File Review:

Completed application	Yes ☑	No ☐		
ARGU review report	Yes ☑	No ☐	N/A ☐	
Signed permit	Yes ☑	No ☐		
Notification of disinfection	Yes ☐	No ☐	N/A ☑	
Sample Results	TC ☑	Nitrate/Nitrite ☑	Other ☐	N/A ☐
~~GW-1 Form~~ / GW-30 Form	Yes ☑	No ☐		
Other related documentation	Yes ☐	No ☐	N/A ☐	

Items requiring correction/modification: _____

Comments:

II. WASPS Review:

Completed application w/ valid address	Yes ☑	No ☐	
ARGU review completed	Yes ☑	No ☐	N/A ☐
Permit issued	Yes ☑	No ☐	
Activity checklist completed	Yes ☑	No ☐	
Appropriate comments included	Yes ☑	No ☐	
Site information record completed	Yes ☐	No ☑	
Well detail record completed	Yes ☑	No ☐	

Items requiring correction/modification: _____

Comments: 7/10/07 - Please release GWS & hold on CO SLS.

Application received date: 7/19/06 ES assigned date: 7/19/06 Permit issued date: 7/26/06

Well approval date: 7/10/07 Number of days to complete project: _____

Review performed by: _____ Date performed: 7/10/07

MECKLENBURG COUNTY

Land Use & Environmental Services Agency
Groundwater & Wastewater Services

July 5, 2007

Dustin Howe
9021 Cannongate Drive
Mint Hill, NC 28227

Re: Well Water Sampling Results
9021 Cannongate Drive
Tax Parcel # 139-052-20

Dear Dustin:

On June 25, 2007, staff with Mecklenburg County Groundwater & Wastewater Services sampled drinking water from the well located on the above referenced parcel. The samples were analyzed for the following parameters: total coliform, nitrate and nitrite.

Laboratory results for the analysis are attached and indicate that at the time of sampling, total coliform bacteria were absent, the nitrate level was 0.08 mg/l (Nitrate-N levels are acceptable if $\leq$ 10 mg/l), and the nitrite level was <0.05 mg/l (Nitrite levels are acceptable if <1.0 mg/l).

If you have any questions concerning these results, please contact me at (704) 432-4259. Thank you!

Sincerely,

Kim Garrett
Environmental Specialist
Mecklenburg County Groundwater & Wastewater Services
kim.garrett@mecklenburgcountync.gov
704-432-4259

Enclosure:
Laboratory Analysis

CHARLOTTE.
CHARLOTTE-MECKLENBURG UTILITIES

Laboratory Analysis Report
Report Date: 6/28/2007 01:08 PM

LABORATORY SERVICES DIVISION

LOCATION: GWO-73601
LOC ID: G-NEW
SAMPLE DATE-TIME: 6/25/2007 11:30 CHAIN OF CUSTODY #: 070625135340
SAMPLE DESCRIPTION: Grab

	Parameter	Result	Units	RL	Method	Start Date/	Time	Analyst
AC23823	**E. COLI-PA**	**Absent**	**P/A**		SM 9223B	6/25/2007	17:00	SLT
AC23823	**Total Coliform- P/A**	**Absent**	**P/A**		SM 9223B	6/25/2007	17:00	SLT

Comment:

Laboratory Supervisor: Rhonda Hudson

Laboratory Certifications: McAlpine NC DENR No.148; Brookshire NC DENR No.162; Hal Marshall N.C. DENR No. 192, N.C. DHHS Laboratory No. 37527

CHARLOTTE-MECKLENBURG UTILITIES - LABORATORY SERVICES DIVISION

Hal Marshall Laboratory, 700 North Tryon St., Charlotte, NC 28202, 704/336-5460

CHAIN OF CUSTODY RECORD

CLIENT:	**Mecklenburg County, LUESA - Groundwater & Wastewater Services**
FACILITY:	Groundwater **(Potable Water)**
ADDRESS:	9021 Cannongate
LAB CODE:	REAL PRIV (NEW) TNC MPL PME AMB LM OTHER

Send Report To:
Kim Garrett
700 N. Tryon St., Suite 211
Charlotte, NC 28202

COC#: 070625135340
Sampled By (Print Name)
Kim Garrett

SAMPLE ID	Sample Collector's Initials	Sample Collection: Begin Date and Time	Sample Collection: End Date and Time	Chlorinated System: Y or N	Sample Temperature: Collection Temp °C	Sample Temperature: Receipt Temp °C	Sample Type: Depth Composite	Sample Type: Auto Composite	Sample Type: Hand Comp	Sample Type: Grab	Sample Containers: Plastic	Sample Containers: Glass	Sample Containers: # Containers	Chemical Preservative: None	Chemical Preservative: HNO3	Chemical Preservative: H2SO4	Chemical Preservative: NaOH	Chemical Preservative: HCl	Chemical Preservative: Na2S2O3	Chemical Preservative: pH Correct	Analyses Requested: Total Coliform
GWO-73601	KSG	6/25/07 11:30 AM	N/A N/A	N	n/a	7.0				X	100 ml		2						X		X
AC23823																					

Instructions:
Complete all yellow shaded sections

Blue is for lab use only

Comments: 24 hr TAT

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
		6/25/07	13:50
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By (Signature)	Date	Time

Form Revision 07; effective 02/16/2006

Lab Codes: REAL=Real Estate, PRIV=Private Well, NEW=New Permitted Well, TNC=Transient Non-Community, AMB=Ambient, LM=Landfill

CHARLOTTE.
CHARLOTTE-MECKLENBURG UTILITIES

Laboratory Analysis Report
Report Date: 6/28/2007 01:07 PM

LABORATORY SERVICES DIVISION

LOCATION: GWO-73601
LOC ID: G-NEW
SAMPLE DATE-TIME: 6/25/2007 11:30 CHAIN OF CUSTODY #: 070625135710
SAMPLE DESCRIPTION: Grab

	Parameter	Result	Units	RL	Method	Start Date/	Time	Analyst
AC23831	**NITRATE**	**0.08**	**mg/L**	0.05	EPA 353.2	6/26/2007	16:07	EWN
AC23831	**NITRATE/NITRITE**	**0.08**	**mg/L**	0.05	EPA 353.2	6/26/2007	16:54	EWN
AC23831	**NITRITE**	**<0.05**	**mg/L**	0.05	EPA 353.2	6/26/2007	16:07	EWN

Comment:

Laboratory Supervisor: Rhonda Robertson

Laboratory Certifications: McAlpine NC DENR No.148; Brookshire NC DENR No.162; Hal Marshall N.C. DENR No. 192, N.C. DHHS Laboratory No. 37527

CHARLOTTE-MECKLENBURG UTILITIES - LABORATORY SERVICES DIVISION

Hal Marshall Laboratory, 700 North Tryon St., Charlotte, NC 28202, 704/336-5460

CHAIN OF CUSTODY RECORD

CLIENT:	**Mecklenburg County, LUESA - Groundwater & Wastewater Services**
FACILITY:	Groundwater **(Potable Water)**
ADDRESS:	9021 Cannongate
LAB CODE:	REAL PRIV (NEW) TNC MPL PME AMB LM OTHER

Send Report To:
Kim Garrett
700 N. Tryon St., Suite 211
Charlotte, NC 28202

COC#: 070625135710
Sampled By (Print Name): Kim Garrett

SAMPLE ID	Sample Collector's Initials	Sample Collection: Begin Date and Time	Sample Collection: End Date and Time	Chlorinated System: Y or N	Sample Temperature: Collection Temp °C	Sample Temperature: Receipt Temp °C	Sample Type: Depth Composite	Sample Type: Auto Composite	Sample Type: Hand Comp	Sample Type: Grab	Sample Containers: Plastic	Sample Containers: Glass	Sample Containers: # Containers	Chemical Preservative: None	HNO3	H2SO4	NaOH	HCl	Na2S2O3	pH Correct	Analyses Requested: Nitrate	Nitrite
GWO-73601 AC23831	ksg	6/25/07 11:30 AM	N/A N/A	N	18.7	1°				X	500 ml		1			X					(X)	
	ksg	↓	N/A N/A	N	↓					X	125 ml		1	X								(X)

Instructions:
Complete all yellow shaded sections

date/time, for Grab samples record the collect time as the Begin date/time only.

Blue is for lab use only.

Comments: **Nitrate and Nitrate Analysis Requested**

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]	[signature]	6/25/07	1370
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Form Revision 07; effective 02/16/2006

Lab Codes: REAL=Real Estate, PRIV=Private Well, NEW=New Permitted Well, TNC=Transient Non-Community, AMB=Ambient, LM=Landfill

RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

KG

WELL CONTRACTOR CERTIFICATION # 3002

6266B

1. WELL CONTRACTOR:

FRANKIE L. OLIVER
Well Contractor (Individual) Name

CAROLINA WELL DRILLING
Well Contractor Company Name

STREET ADDRESS 6014 MEDLIN RD.

MONROE NC 28112
City or Town State Zip Code

(704) 764-8085
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable)

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable) MECK. CO. # 1000116H

WELL USE (Check Applicable Box): Residential Water Supply (☑)

DATE DRILLED 5-8-01

TIME COMPLETED 2:00 AM ☐ PM ☑

3. WELL LOCATION:

CITY: MINT HILL COUNTY MECKLENBURG

9021 CANNONGATE DR.
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐ Slope ☐ Valley ☑ Flat ☐ Ridge ☐ Other
(check appropriate box)

LATITUDE 35° 11.248 N

LONGITUDE 80° 37.113 W

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☑ GPS ☐ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. WELL OWNER

OWNER'S NAME DUSTIN HOWIE

STREET ADDRESS 9021 Cannongate Drive

Charlotte NC 28227
City or Town State Zip Code

(704) 361-1704
Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 600'

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☑

c. WATER LEVEL Below Top of Casing: 35 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 1 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): 6 METHOD OF TEST AIR

f. DISINFECTION: Type 70% HTH Amount: 48 oz.

g. WATER ZONES (depth):

From	To	From	To
581			

6. CASING:

From	To	Depth	Diameter	Thickness/ Weight	Material
0	94	Ft.	6¼"	SDR 21	PVC
		Ft.			
		Ft.			

7. GROUT:

From	To	Depth	Material	Method
0	32	Ft.	PORTLAND	POUR
		Ft.		
		Ft.		

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
		Ft.	In.	In.	
		Ft.	In.	In.	
		Ft.	In.	In.	

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
		Ft.		
		Ft.		
		Ft.		

10. DRILLING LOG

From	To	Formation Description
0	25	RED DIRT
26	49	BROWN DIRT
50	82	SANDSTONE
83	600	GRANITE

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR — DATE 5-9-01

FRANKIE L. OLIVER / CLIFF RAPE
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

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

10

PERMIT TO CONSTRUCT A WATER SUPPLY WELL

Permit #: 10001164 **File #:** 6266B **Tax Parcel #:** 139-052-20
Property Owner: DUSTIN T. HOWIE
Job Location Address: 9021 CANNONGATE DR
City/ETJ: CHARLOTTE **State:** NC **Zip Code:** 28227
Permit Issuance Date: 7/26/2006
Use of Well: Potable
Type of Facility Served by Well: House
Sewage System Type: None

Area of Regulated Groundwater Usage Restrictions Apply: YES

Replacement for Existing Well: If Yes, see requirements in Other Conditions of This Permit.

General Conditions of This Permit:

- Water Supply Well construction must meet all requirements set forth in the *Mecklenburg County Groundwater Well Regulations* and any other applicable rules and laws.
- A North Carolina Certified Well Contractor must perform the well construction activities.
- The permitted Water Supply Well shall be located in accordance with the attached SITE PLAN.
- Any alteration of the site (including location of structures and appurtenances) or modification in use of the well, may subject this Permit to revocation.
- The Department will collect an initial sample of water from the Water Supply Well and analyze the sample for total coliform bacteria, nitrate, and nitrite. A review of the analysis by the Department must find the sample to meet the groundwater quality standards specified in Chapter 5 of the Mecklenburg County Groundwater Well Regulations before the Water Supply Well can be placed in service.
- This Permit shall be VALID for a period not to exceed 12 months from the date of issuance.

Specific Conditions of This Permit (Check all that apply):

☐ Grout must be placed the full extent of the casing. ☐ Casing to bedrock

☐ Initial water sample to be taken and analyzed for (check all that apply):

☐ Volatile Organic Compounds (VOC's) ☐ Semi-volatile Compounds ☐ Metals (Specify in Other Conditions)

☐ Pesticides ☐ Herbicides ☐ Other (See Below)

The analysis must be submitted to the Department for review and approval prior to the Water Supply well being placed in service.

Other Conditions of This Permit:

DAVID CORNELIUS, RS
Authorized Agent: Print Name

Signature:

DUSTIN T. HOWIE
Owner/Legal Agent: Print Name

Signature:

ACTIVITY REPORT

LOG NUMBER: 2006-00436
ACTIVITY DATE: 07/25/2006
TYPE OF ACTIVITY: Office Report
FILE DESCRIPTOR: GW-I-CO-

SITE INFO

SITE: SHARPE RESIDENCE
PARCEL ID: 13903225
ADDRESS: 8504 BARTLETT RD
CHARLOTTE NC 28227-

CONTACT:
BUSINESS PHONE NO: ( ) -

ACTIVITY

EPIC Rept. for ARGU Review
9021 Cannongate Dr., Charlotte, NC 28227
PID# 139-052-20
File # 6266B

Public water supplied by CMUD is currently not available at this site.

7/24/06 (Mon.) - Received request for ARGU review for new WSW located at 9021 Cannongate Dr., Charlotte, PID #139-052-20. According to the WIS, there are no existing wells at this property.

7/25/-06 (Tues.) - Conducted ARGU Review. Identified 1 former MPL site within 2,000' of the subject parcel:

Former MPL# 949 Sharpe Residence
8504 Bartlette Rd., Charlotte, NC 28227
PID# 139-032-25
NCDENR UST Section Inc. #15137
Source-550 gallon heating oil UST

File Review of former MPL# 949:

NCDENR UST database indicates a no further action for soil only incident no. 15137 following excavation of impacted soils discovered during closure of a 550 gallon heating oil tank at this residence in 1996.

A MPL investigation was conducted by GWS staff in Dec. 1999. Eleven WSWs observed within 1500' and two WSWs were sampled. No wells were impacted.

The subject site is within approximately 500' of the Sharpe Residence.

Based on review of former MPL #949 in Feb., 2006, this incident was removed from the MPL list, leaving the Sharpe Residence status as a GW site only based on a clean UST closure. The permit for a new well installation at PID# 139-052-20, 9021 Cannongate Dr., Charlotte is therefore approved and the well would no longer be inside a 1,500' ARGU buffer, so it will only require installation under the Mecklenburg Co. Groundwater Regulations dated Oct. 5, 2004 with no other special conditions.

End.

VIOLATIONS

VIOLATION COMMENTS:

VIOLATION # DESCRIPTION

SAMPLES

SUMMARY

STATUS: CLOSED
DATE CLOSED: 09/18/2006
MISC EXPENSES: 0.00

TIME ON SITE: :
TRAVEL TIME: :
ADMIN TIME: 2:00
MILEAGE:

STATE REPORT FORM:
SUMMARY:

SIGNATURES

ENVIRONMENTALIST: _____ **DATE** 07/25/2006
Shawna Caldwell

REVIEWED BY: _____ **DATE** 08/15/2006
Jack L. Stutts

Hydrogeologist Permit Application Review

Application #: 1164

Permit File #: 6266B

Permit Type: New Well (Residential)

ARGU Review Completed: (•) Yes ( ) No

Permit Denial?: ( ) Yes (•) No

Additional Conditions:

☐ Full Grouting ☐ Casing to Bedrock ☐ Sampling

☐ Volatile Organic Compounds (VOC's) ☐ Semi-volatile Compounds ☐ Metals (Specify in Other Conditions)

☐ Pesticides ☐ Herbicides ☐ Other

Comments/Other Sample Types:

EHS Review | Update

The application has been forwarded to David Cornelius for review.

Date: 7/25/06
Reviewed By: SWC

MECKLENBURG COUNTY

Land Use & Environmental Services Agency
Groundwater & Wastewater Services

ARGU Review Worksheet

Job Location Information

Tax Parcel ID #: 139-052-20 File # 6266B

Street Address: 9021 Cannongate Dr., Charlotte, NC 28227

Contamination Site Information

(If more than one contamination site is within 2000 feet of the job location, fill out a separate review worksheet for each contamination site)

Tax Parcel ID #: 139-032-25 MPL # 949 (former)

Street Address: 8504 Bartlett Rd., Charlotte, NC 28227

DENR Incident #: 15137

Current Status: Clean Closure/Heating Oil USTs Why? Impacted soil excavated following Closure of 550 gallon heating Oil UST.

Responsible Party: David and Doris Sharpe

Responsible Party Contact Info: 8504 Bartlett Rd.
Charlotte, NC 28227

File Review

Attach the most recent extent of contamination map for each constituent above either 2L groundwater standard or Maximum Soil Contaminant Concentration (MSCC).

Attach copies of groundwater flow maps. (Watch of seasonal change)

Attach a copy of the most recent summary table for soil/groundwater laboratory analysis
Is the source area identified in either the report text or on a site map? Attach map or if text only, indicated the location on an extent of contamination map.
Based on this information, answer the following questions:

Has the extent of contamination been defined or partially defined for all constituents-of-concern? Yes

If Yes	ARGU is a 1500-foot buffer around the maximum extent of contamination

If No, is the source area defined?

If Yes	ARGU is a 1500-foot buffer around the source area
If No	ARGU is a 1500-foot buffer around the contamination site property boundary.

Is a public water supply (other than transient or non-transient supply wells) available to the proposed job location? No

If No	Well allowed, but construction requirements apply. Sampling requirements may apply pending hydrogeologic review.
If Yes	Is the well within the first 1000 feet of the ARGU?
If No	Well allowed, but construction requirements apply. Sampling requirements may apply pending hydrogeologic review.
If Yes	Permit denied.

Reviewer Comments: Because, based on a previous ARGU review in Feb., 2006, MPL#949 was removed from the MPL list as a clean UST closure, the proposed well location is no longer inside an ARGU buffer of 1500 feet from the maximum extent of contamination at the Sharpe Residence property, the permit would be approved with no special construction requirements related to a well constructed in a Area of Regulated Groundwater Usage.

EPIC Rept. for ARGU Review
9021 Cannongate Dr., Charlotte, NC 28227
PID# 139-052-20
File # 6266B

Public water supplied by CMUD is currently not available at this site.

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NCDENR UST database indicates a no further action for soil only incident no. 15137 following excavation of impacted soils discovered during closure of a 550 gallon heating oil tank at this residence in 1996.

A MPL investigation was conducted by GWS staff in Dec. 1999. Eleven WSWs observed within 1500' and two WSWs were sampled. No wells were impacted.

The subject site is within approximately 500' of the Sharpe Residence.

Based on review of former MPL #949 in Feb., 2006, this incident was removed from the MPL list, leaving the Sharpe Residence status as a GW site only based on a clean UST closure. The permit for a new well installation at PID# 139-052-20, 9021 Cannongate Dr., Charlotte is therefore approved and the well would no longer be inside a 1,500' ARGU buffer, so it will only require installation under the Mecklenburg Co. Groundwater Regulations dated Oct. 5, 2004 with no other special conditions.

End.

App. #: 1164

Septic Fee: 0.00

Date: CRT[ ]

PERMIT APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT FOR ONSITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

MECKLENBURG COUNTY GROUNDWATER & WASTEWATER SERVICES

FILE # 6266B

Well Fee: 400.00

Date: 7/19/2006 CRT[ ]

SEPTIC / TYPE APPLICATION: (•) NONE ( ) NEW SYSTEM ( ) ALTERATION ( ) REPAIR ( ) MODIFIED PLOT PLAN

WELL / TYPE APPLICATION: ( ) NONE (•) NEW WELL ( ) MAJOR REPAIR ( ) ABANDONMENT

JOB LOCATION INFORMATION:

TAX / PARCEL #: 139-052-20 [ ] PO

STREET ADDRESS: 9021 CANNONGATE DR

CITY: CHARLOTTE

STATE: NC ZIP: 28227

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT #: 1

TOWNSHIP: 07

General Comments:

BUILDING INFORMATION:

TYPE OF BUILDING:

( ) SINGLE MOBILE HOME (S) ( ) MODULAR HOME (M)

( ) DOUBLE WIDE (D) ( ) MULTIPLE FAMILY (U)

(•) HOUSE (H) ( ) OTHER

HEATED SQUARE FOOTAGE: 3546

NUMBER OF BEDROOMS: 4

NUMBER OF OCCUPANTS: 4

FOUNDATION FOR RESIDENCE:

[ ] CONCRETE SLAB [ ] BASEMENT WITH PLUMBING

[x] CRAWL SPACE [ ] BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND / ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:

NUMBER OF BEDROOMS TO BE ADDED: 0

NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: 0

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE?: ( ) Yes (•) No

TYPE:

WATER SUPPLY:

[ ] MUNICIPAL (M) [ ] PUBLIC (C) [x] PRIVATE WELL (P) [ ] SHARED WELL (S) [ ] OTHER 'SPRINGS' (O)

PROPOSED USE OF WELL: ( ) N/A ( ) IRRIGATION (•) POTABLE ( ) GEOTHERMAL ( ) OTHER

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	( ) Yes (•) No	WELLS, SPRINGS, OR WATER LINES	( ) Yes (•) No
EXISTING WASTEWATER SYSTEMS	( ) Yes (•) No	DESIGNATED WETLANDS	( ) Yes (•) No
EASEMENTS OR RIGHT-OF-WAYS	( ) Yes (•) No	GRADING/SOIL REMOVAL PERFORMED	( ) Yes (•) No

PROPERTY OWNER:

NAME: DUSTIN T. HOWIE

ADDRESS: 6217 RANDY DRIVE

CITY: CHARLOTTE

STATE: NORTH CAROLINA ZIP: 28215

HOME PHONE: 704-566-0026 WORK:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:

ADDRESS:

CITY:

STATE: ZIP:

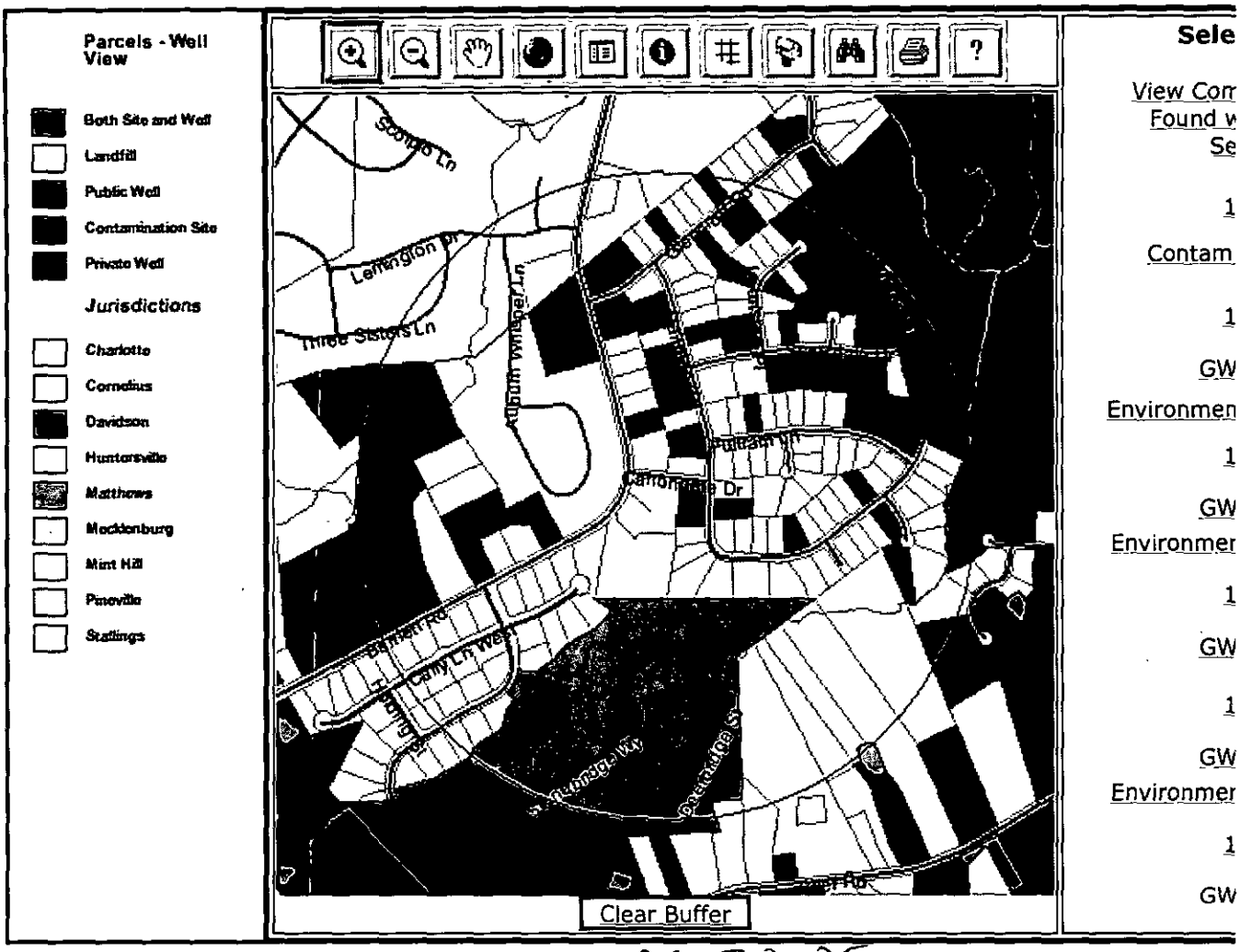
HOME PHONE: WORK:

MOBILE:	704-361-1704	FAX:		MOBILE:	FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?

WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

PRINT | Update | Go to Front Counter



PID# 139-032-25
UST Inc. 15137
MO-4536/CD-11

soil only CO / clean closure following soil excavation / no GW impact

Mecklenburg County, NC Groundwater & Wasterwater Services
Contamination Site Information

For questions or comments concerning the information on this page call 704-336-5500.

***Parcel ID:** 13903225
Name: SHARPE RESIDENCE
House No: 8504
Street Dir:
Street Name: BARTLETT
Street Type: RD
City: CHARLOTTE
State: NC
Zip: 28227
NC Incident Number: 15137 EXIT Well Information System

* Link to GIS Real Estate System

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

May 15, 1996

Mr. David Sharpe
Mrs. Doris Sharpe
c/o Parker, Poe, Adams & Bernstein, L.L.P.
2500 Charlotte Plaza
Charlotte, North Carolina 28244

RE: Soil Sample Results from
Underground Storage Tank Closure
Former Sharpe Residence
8504 Bartlett Road
Incident № 15137
Mecklenburg County, N.C.

Dear Mr. and Mrs. Sharpe:

The Groundwater Section of the Division of Environmental Management at the Mooresville Regional Office has received the laboratory analyses from five additional soil samples collected during the closure of one underground storage tank at the subject site. The report arrived on May 1, 1996. Based on the reported results, no further action is required at this time.

Should you have any questions, please do not hesitate to call me.

Sincerely,

Allen Schiff
Hydrogeologist

cc: Fay Sweat - Groundwater Section, Raleigh

AS/kr

919 North Main Street,
Mooresville, North Carolina 28115
Voice 704-663-1699

Reduce Reuse Recycle

FAX 704-663-6040
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AWARE ENVIRONMENTAL INC.

VIA COURIER

April 30, 1996

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

MAY 0 1 1996

DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

Mr. & Mrs. David and Doris Sharpe
c/o Parker, Poe, Adams & Bernstein, L.L.P.
2500 Charlotte Plaza
Charlotte, North Carolina 28244

Attn: Ms. Martha Waller, Esquire

Re: Excavation of Petroleum-Impacted Soils and Water Supply/Potential Receptor/Land Use Survey
Former David and Doris Sharpe Residence
8504 Bartlett Road, Mint Hill, North Carolina
AEI Project No. N325-01

Dear Ms. Waller:

In accordance with AWARE Environmental Inc.'s® (AEI) February 23 and March 21, 1996 proposals, this letter report addresses recent remedial activities involving the excavation, transport and off-site treatment of soils impacted by No. 2 fuel oil from a small heating oil underground storage tank (UST) at the referenced residence located at 8504 Barlett Road in Mint Hill, North Carolina (Figure 1). This report also includes the observations and findings of a water supply/potential receptor/land use survey for the area within a 1500-foot radius of the subject site.

Previous Activities

A UST was formerly used at the subject residence to store No. 2 fuel oil for home heating purposes. This tank was previously removed by Southern Tank and Environmental, Inc. It is AEI's understanding that as part of the initial tank closure, confirmatory soil samples were collected from the excavation pit for laboratory analyses and then the excavation was backfilled with clean soil. Subsequent sample analytical data indicated that petroleum-impacted soils remained in the immediate vicinity of the tank basin. The detected total petroleum hydrocarbon (TPH) levels in the remaining soils exceeded the action levels of 40 mg/kg for diesel-type hydrocarbons and 10 mg/kg for gasoline-type hydrocarbons as

approximately 48 persons. This is based on an average household of four (4) persons to a residence.

Conclusions

Soils in the immediate vicinity of a former residential heating oil UST at the subject site were impacted by the release of No. 2 fuel oil from the former tank. The tank was previously removed by Southern Tank and Environmental, Inc. Tank closure confirmatory samples were collected by others following the UST removal and were subsequently analyzed for TPH. Petroleum hydrocarbon concentrations in the soils surrounding the former tank basin were reportedly detected above the NCDEM action level(s).

On February 26, 1996, AEI personnel monitored and documented the excavation of petroleum-impacted soils from the former tank basin area. Confirmatory soil samples were collected by AEI personnel from the excavation area and stockpiled soils for analyses of TPH by EPA Methods 8015M/3550 and 5030. Analytical results confirmed that petroleum-impacted soils did exist in the former tank basin and that petroleum impacts above the NCDEM action levels for petroleum-contaminated soils were successfully removed during the recent excavation activities.

Impacted soils that were removed from the tank basin were temporarily stockpiled on-site and placed on 10 mil polyethylene sheeting and covered by the same material. Also, backfill materials removed from the tank basin were field screened, stockpiled on plastic and sampled. No significant petroleum impacts were detected in the backfill soils by either field-screening methods or confirmatory sample analyses.

The stockpiled petroleum-impacted soils were removed and transported to Environmental Soils, Inc. facility in Lattimore, North Carolina for biotreatment by land application.

A water supply/potential receptor/land use survey of the area located within a 1,500-foot radius of the site was conducted by AEI. Land use within the search area is primarily single family residences. Because municipal-supplied water nor community water systems

appear to be available to the area, all water within the search radius is obtained by private water supply wells.

It is not anticipated that there were any receptors of vapors and/or petroleum due to the release from the subject UST. Analytical results indicated that all impacted soils were successfully removed prior to any migration and possible intersecting of any potential receptor.

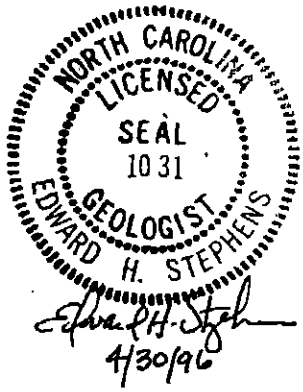
AEI appreciates the opportunity to provide environmental consulting services. Should you have any questions please contact either Ed Stephens or me at (704) 845-1697.

Sincerely,
AWARE Environmental Inc.®

Roger A. Smith
Project Geologist

Approved by:

Edward H. Stephens, P.G.
Associate



Attachments

cc: File
E. Stephens, AEI
M. Smith, AEI

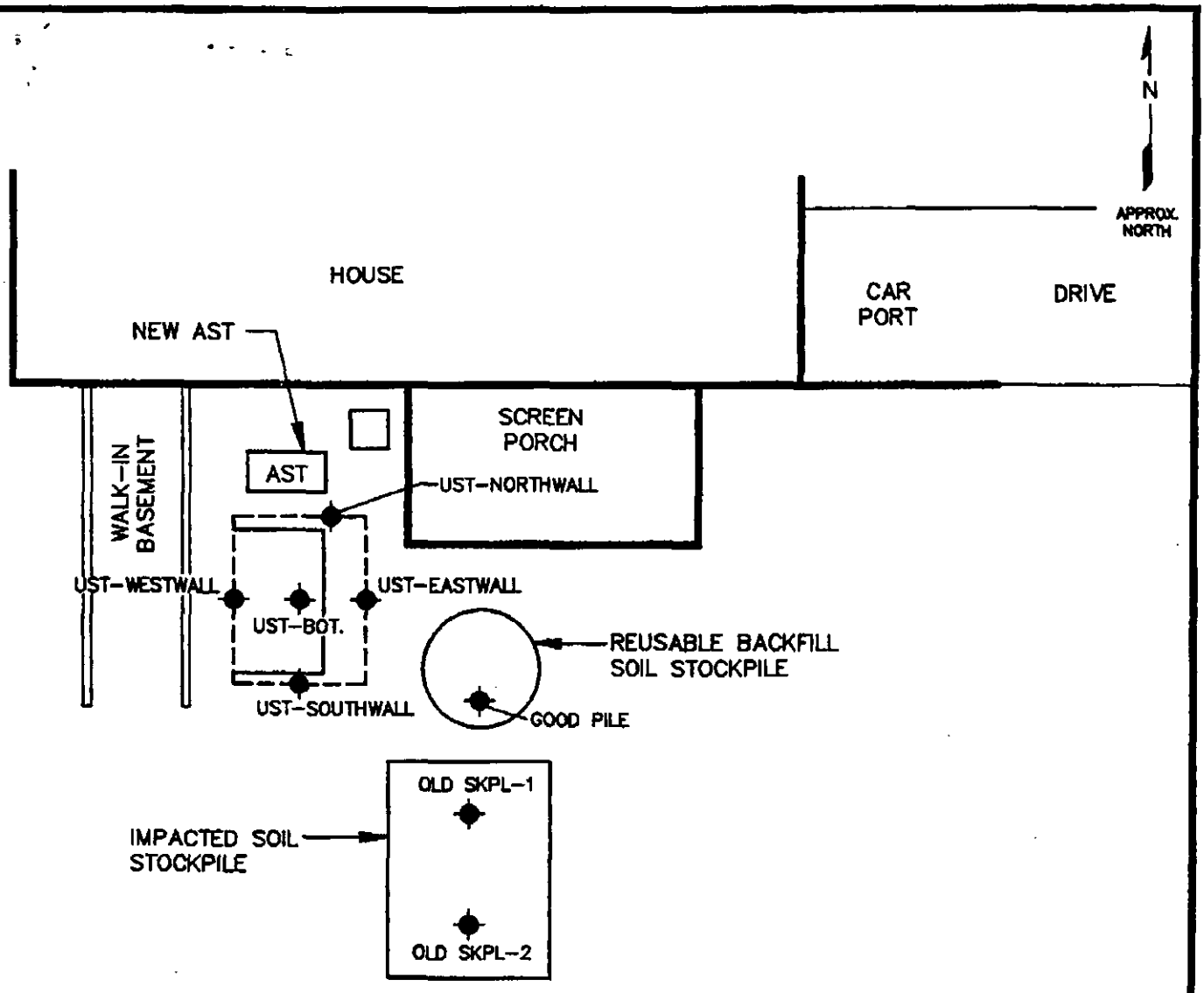
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Table 1

Sample Analytical Summary
Sharpe's Residence
N325-01

Sample ID	Units	EPA Method 8015M/3550 Diesel Range	EPA Method 8015M/5030 Gasoline Range
UST-BOT.	mg/kg	8.43	<2.0
UST-WESTWALL	mg/kg	7.35	<2.0
UST-EASTWALL	mg/kg	7.32	<2.0
UST-NORTHWALL	mg/kg	7.55	<2.0
UST-SOUTHWALL	mg/kg	<1.6*	<2.0
OLD SKPL-1	mg/kg	739	26.5
OLD SKPL-2	mg/kg	943	5.64
GOOD PILE	mg/kg	16.5	<2.0
NCDEM Action Level	mg/kg	40	10

Notes:
All samples collected by AEI on Feb. 26, 1996.
All samples analyzed by Hydrologic, Inc., Frankfort, KY.
Diesel Range analysis by EPA Method 8015M/3550.
Gasoline Range analysis by EPA Method 8015M/5030.
*: Reported level is below detection limit of 1.6 mg/kg for EPA Method 8015M/3550.
TPH-DRO (diesel range organics) level reported at 8.21 mg/kg.
Action levels taken from NCDEM-Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater (March 1993 with June 1993 Revisions incorported).



LEGEND

- SAMPLE LOCATION
- APPROX. LIMITS OF PRIOR UST EXCAVATION
- APPROX. LIMITS OF FEBRUARY 26, 1996 EXCAVATION

UST EXCAVATION AND SAMPLE LOCATION MAP

SHARP RESIDENCE
MINT HILL, NORTH CAROLINA

SCALE: NOT TO SCALE	APPROVED BY :	DRAWN BY: J.K.S.
DATE: MARCH 1996	DESIGNED BY :	REVISED
PROJECT NUMBER: N325-01	ADVANCE INC	DRAWING NO.: FIGURE 2

March 18, 1996 1:48:17 p.m.
Drawing: D:\325\01.DWG

1164

GWS – RES. APP 0705

SEPTIC FEE:
DATE:
CRT [ ]

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

WELL FEE: 410 1622
DATE: 7/19/06
CRT [ ]

FILE # 62668

SEPTIC / TYPE APPLICATION: ☐ NONE ☑ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFY PLOT PLAN

WELL / TYPE APPLICATION: ☐ NONE ☑ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

JOB LOCATION INFORMATION:

TAX/PARCEL #: 13905220
STREET ADDRESS: 9021 CANNONGATE DRIVE
CITY: MINT HILL
STATE: NC ZIP: 28227
SUBDIVISION OR MOBILE HOME PARK NAME: DORIS HOKE PROPERTY
LOT #: 1
TOWNSHIP:

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

BUILDING INFORMATION: Shawna then David

TYPE OF BUILDING:

☐ SINGLE MOBILE HOME (S) ☐ MODULAR HOME (M)
☐ DOUBLE WIDE (D) ☐ MULTIPLE FAMILY (U)
☑ HOUSE (H) ☐ OTHER

HEATED SQUARE FOOTAGE: 3546
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 4

FOUNDATION FOR RESIDENCE:

☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:

NUMBER OF BEDROOMS TO BE ADDED: NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE:
WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☐ NO TYPE:

WATER SUPPLY:

☐ MUNICIPAL (M) ☐ PUBLIC (C) ☒ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER SPRINGS (O)

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

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES ☒ NO	WELLS, SPRINGS, OR WATER LINES	☐ YES ☒ NO
EXISTING WASTEWATER SYSTEMS	☐ YES ☒ NO	DESIGNATED WETLANDS	☐ YES ☒ NO
EASEMENTS OR RIGHT-OF-WAYS	☐ YES ☒ NO	GRADING/SOIL REMOVAL PERFORMED	☐ YES ☒ NO

PROPERTY OWNER:

NAME: DUSTIN T. HOWIE
ADDRESS: 6217 RANDY DRIVE
CITY: CHARLOTTE
STATE: NC ZIP: 28215
HOME PHONE: 704 566-0024 WORK PHONE:
MOBILE PHONE: 704-361-1704 FAX:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?

WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

*An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

12-16-05
Owner's/Agent's Signature Date

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT & NATURAL RESOURCES DIVISION
OF ENVIRONMENTAL HEALTH ON-SITE
WASTEWATER SECTION

*A Well Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

7-19-06
12-16-05
Owner's/Agent's Signature Date

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

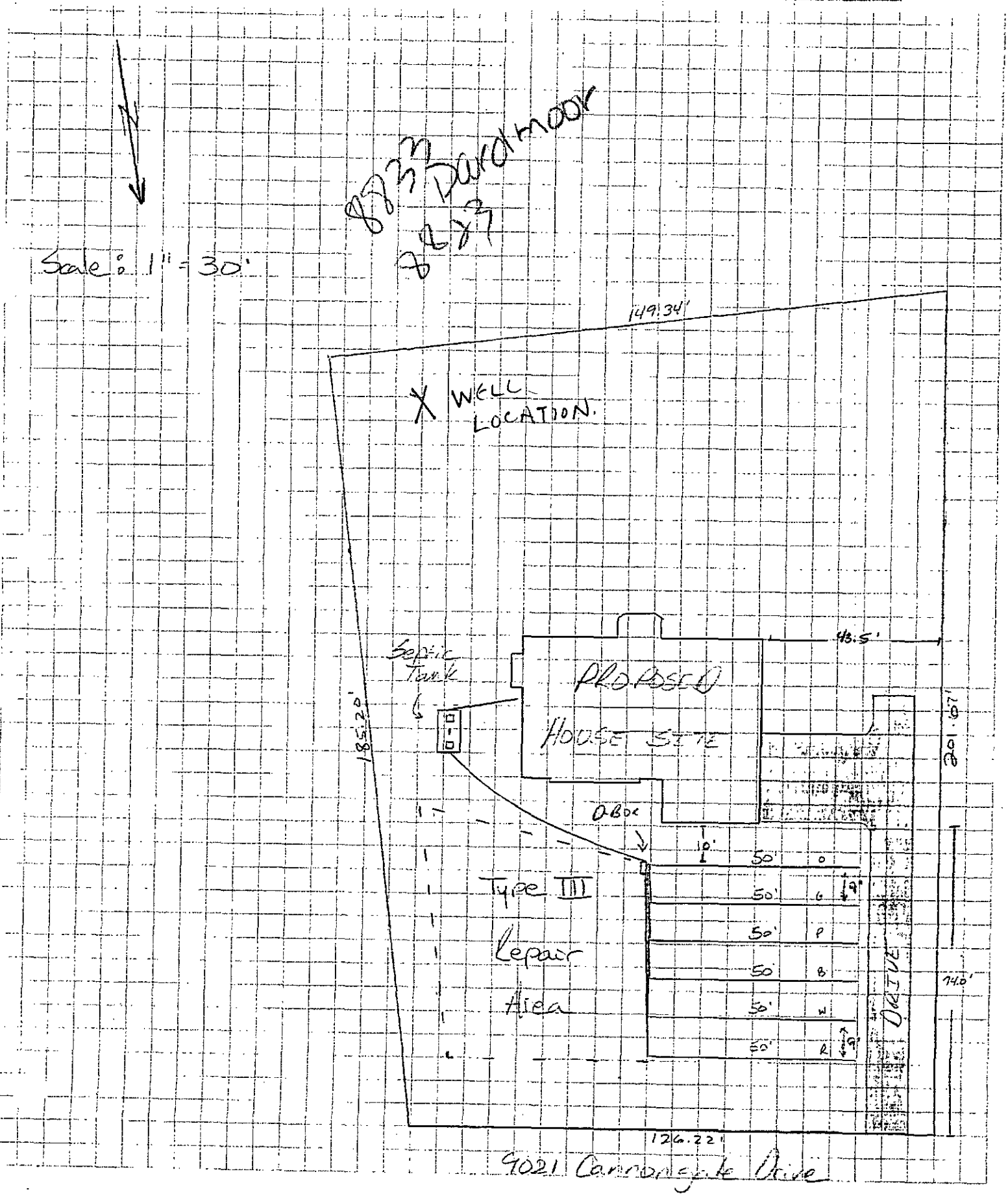
0753

Thompson Environmental Consulting, Inc.
114 Orchard Ridge Road
Locust, NC 28097-8748

File Number: 6266B

Location: 9021 Cannongate Drive

Date: June 19, 2006



2057 UXS
OK

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 62663 WASPS App #: 2810

Primary ES assigned to project: DC

Secondary ES assigned to project: _____

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

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: _____ Were sufficient auger borings made?	Yes ☐	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR	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?			
.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:

_____

_____

_____

_____

_____

IA issued date: _____

OP issued date: _____

Review performed by: _____ Date performed: 10-9-07

2810 D Cornelius

FEE: 100.00
DATE: 10/8/07
CRT # Cash

APPLICATION FOR APPROVAL TO USE AN EXISTING ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM
MECKLENBURG COUNTY - GROUNDWATER & WASTEWATER SERVICES
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

GWS – UES.APP 06/07

FILE #: 6266B

TYPE APPLCATION:

☐ ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A / M)
☐ EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
☑ ADDITION - RENOVATION OR GARAGE WITH NO MAJOR CHANGES (X)
☐ COMMERCIAL OR INDUSTRIAL (N)

PERSON FILING APPLICATION:

NAME: DUSTIN HOWIE
ADDRESS: 9021 CANNONGATE DRIVE
CITY: MINT HILL
STATE: NC ZIP: 28227
PHONE: 704-361-3361
ALTERNATE PHONE:

PROPERTY OWNER:

NAME: DUSTIN HOWIE
ADDRESS: 9021 CANNONGATE DRIVE
CITY: MINT HILL
STATE: NC ZIP: 28227
PHONE: 704-361-3361
ALTERNATE PHONE:

JOB LOCATION INFORMATION

TAX/PARCEL #: 139.052.20
STREET ADDRESS: 9021 CANNONGATE DRIVE
CITY: MINT HILL
STATE: NC **ZIP:** 28227
SUBDIVISION OR MOBILE HOME PARK NAME:

LOT #:

TOWNSHIP:

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

WATER SUPPLY:

☐ MUNICIPAL (M) ☐ COMMUNITY (C) ☑ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER 'SPRINGS' (O)

RESIDENTIAL PROPERTY TYPE:

☑ HOUSE (H) ☐ MODULAR HOME (M) ☐ MULTIPLE FAMILY (U)
☐ SINGLE MOBILE HOME (S) ☐ DOUBLE WIDE (D)
☐ OTHER (O)

OCCUPANCY (both fields are required):

NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 4

UTILITY BUILDING

COMMERCIAL / INDUSTRIAL PROPERTY TYPE:

TYPE OF BUSINESS:
EMPLOYEES PER SHIFT:
OF SHIFTS:

INDUSTRIAL WASTES? ☐ YES ☐ NO
UNDERGROUND STORAGE TANKS? ☐ YES ☐ NO

ADDITION TYPE ATTACHED TO EXISTING STRUCTURE:

☐ BEDROOM ☐ BATHROOM ☐ KITCHEN ☐ DINING ROOM ☐ LIVING ROOM ☐ DEN
☐ GARAGE ☐ SUNROOM ☐ PORCH ☐ DECK ☑ OTHER [redacted]

ADDITION TYPE DETACHED FROM EXISTING STRUCTURE:

☐ DETACHED GARAGE ☐ DETACHED GARAGE WITH PLUMBING ☐ POOL HOUSE ☐ SHOP ☐ BARN
☑ STORAGE SHED ☐ DETACHED PORCH / DECK ☐ OTHER

*The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Owner's/Agent's Signature — Date: 10-8-07

*The undersigned, an authorized agent of the Mecklenburg County Health Department, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules for Sanitary Sewage Collection, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an installation, construction, alteration and/or repair approval is granted y this Department.
- This permit is not transferable.

☐ ADDITION / RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE
☐ MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE

ADDITION APPROVED. O.K TO USE EXISTING SYSTEM.

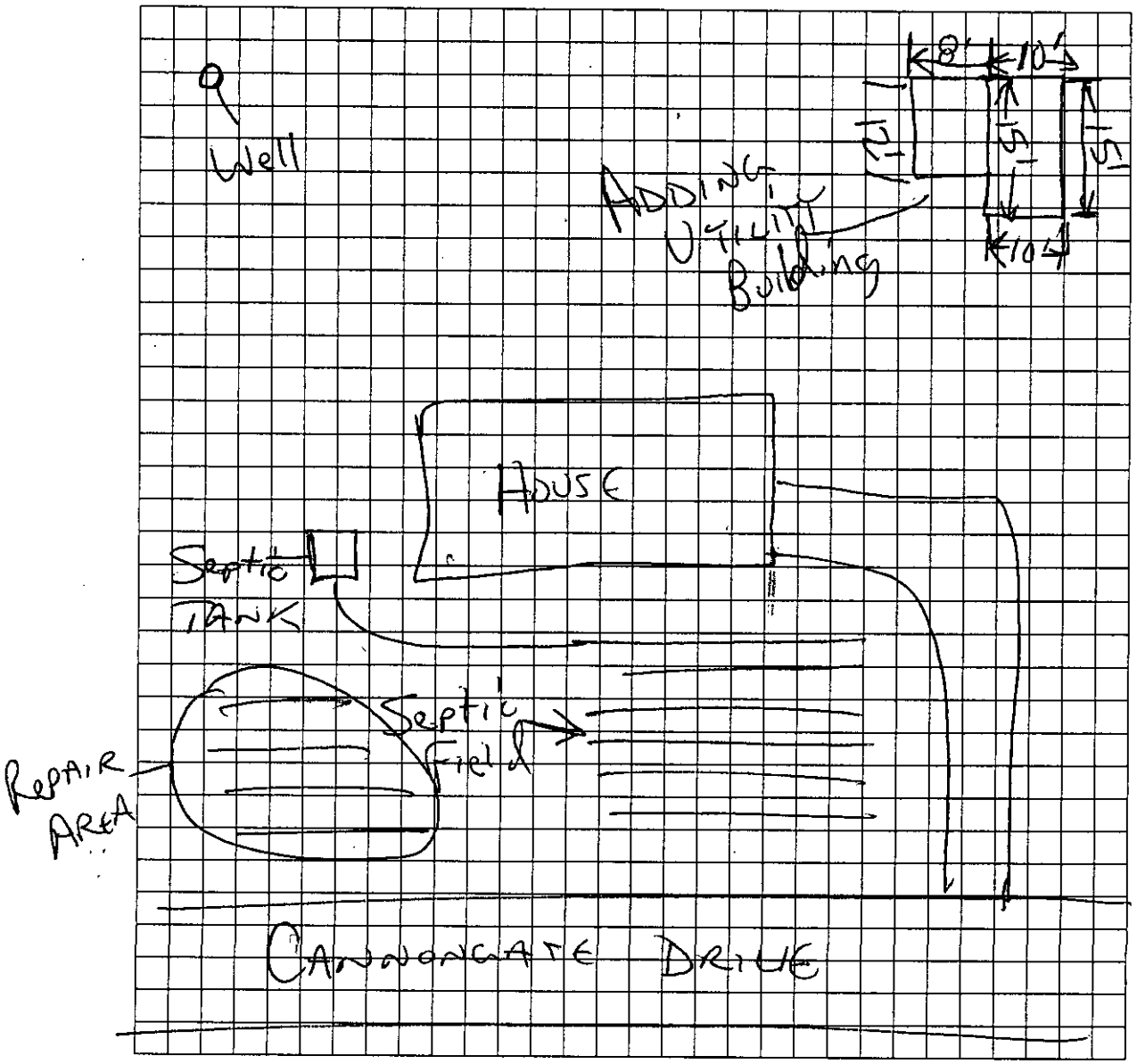
EHS Signature — Date: 10/9/07

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

File #_____
Date_____

PROPOSED PLOT PLAN

A map showing existing and proposed property lines and easements with dimensions, the location of the single family residence, non-single family residence, or other facility, and appurtenances, the site for the proposed well, and the location of existing or proposed sewer lines and/or sewage disposal systems, surface water bodies, aboveground or underground storage tanks. Name all roads adjoining the property. If this a repair indicate the type of repair.



Owner/Agent Signature	
Date	10-8-07

LBC 12/15/04

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	10/08/07	**Amount:**	100.00
Receipt #:	53063	**Tendered:**	0.00
Check / Auth #:	CASH	**Returned:**	0.00
Received By:	GLADNAG		

Account Information

Account #: 200000
Contractor: HOWIE DUSTIN
Attn:
Address: 9021 CANNONGATE DR
Address:
City/State/Zip: MINT HILL, NC 28227

Item	Description	Permit#	Quantity	Unit Price	Total Price
0705	MH Exc/Add/Repl w/o System Mod 9021 CANNONGATE DR		1	100.00	100.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
1,750.00					

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

INSTALLATION APPROVAL for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 62666 Permit #: 62666 Tax Parcel #: 139-052-20

Property Owner: DUSTIN T. HOWIE

Job Location Address: 9021 CANNONGATE DR.

City: CHARLOTTE State: NC Zip Code: 28227

Installation Approval Issuance Date: 4/25/07

Permission is hereby given to ☑ install ☐ alter ☐ repair an on-site wastewater treatment & and disposal system, with subsurface soil absorption and effluent discharge, as specified herein at the described location. This approval is granted based upon the application information submitted to our office. All work shall be completed on or *before* 5/25/07, after which date this approval shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 1900 which are in effect on the date of *granting this approval*. An **Operation Permit** must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now of hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

***NOTICE: This system shall not be installed while soils are in a wet condition.**

Permitted Design Flow: 480 GPD

Site LTAR: 0.275 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: N/A gallons

Drainfield Design ☐ N/A PPBPS

Trench Depth: 28 inches 50% REDUCTION

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 300 feet

# of Lines: 6 @ 50 feet

Depth of Media: N/A inches (Type) 111e

Distribution Device: D-Box

Bed Design *(For Repair Installations ONLY.)* ☑ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Distribution Device: _____

Water Supply Source

☐ Municipal ☑ Private Well ☐ Community Well

☐ Other _____

Minimum System Setbacks

Distance from Building Foundation: 5 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 750 feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)

INSTALL ACCORDING TO PLANS ON FILE SUBMITTED BY LARRY THOMPSON & THE CATENA GROUP. 6/20/06.

Comments: System Classification & Type: 111e, 50% REDUCTION, PPBPS. INSTALL 6 LINES @ 50' ea., 1500 GAL ST. INSTALL ACCORDING TO PLANS ON FILE SUBMITTED BY LARRY THOMPSON & THE CATENA GROUP. ~~[illegible]~~.

DENR Authorized Agent: DAVID CORNELIUS Signature: [signature]

Chantelle Cosmetics Ltd.
7021 Commodore Drive
Toronto, Ontario
M3J 2Z1

Phone: 416-630-7700
Fax: 416-630-7701

Date: March 15, 2024

Purchase Order No.: PO-2024-0312

Vendor:
Pacific Rim Packaging Solutions
1455 Harbour Road
Vancouver, BC V6B 3K9

Attn: Ms. Jennifer Wong

Ship To:
Chantelle Cosmetics Ltd.
Receiving Dock
7021 Commodore Drive
Toronto, ON M3J 2Z1

Item No.	Description	Qty	Unit Price	Total
PKG-001	50ml Frosted Glass Bottle with Pump	10,000	$1.85	$18,500.00
PKG-002	Matte Black Cap with Gold Foil Stamp	10,000	$0.95	$9,500.00
PKG-003	Custom Printed Carton, 4-Color	2,500	$0.42	$1,050.00
PKG-004	Foam Insert, Die-Cut	2,500	$0.18	$450.00

Subtotal: $29,500.00
GST (5%): $1,475.00
Total: $30,975.00

Terms: Net 30 days from invoice date.
Please reference PO number on all shipping documents and packing slips.
Delivery required by April 5, 2024.

Authorized by: _____ Date: _____

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

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

File #: 6266B Permit #: 6266B Tax Parcel #: 139-052-20

Property Owner: DUSTIN T. HOWIE

Job Location Address: 9021 CANNONGATE DR.

City: CHARLOTTE State: NC Zip Code: 28227

Operation Permit Issuance Date: 5/2/07 Contractor Name: RCS

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: N/A gallons

Effluent Pump Model: N/A

Drainfield Installation ☐ N/A PPBPS 50% REDUCTION

Trench Depth: 28 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 300 feet

# of Lines: 6 @ 50 feet

Depth of Media: N/A inches (Type) IIIe

Depth of Cover: 12 inches

Distribution Device: D-Box

Inspection Dates

Tank(s) Inspected: 5/2/07

Excavation Inspected: 5/2/07

Pump & Controls Inspected: N/A

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: _____

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

INSTALLED ACCORDING TO PLANS ON FILE SUBMITTED BY LARRY THOMPSON & THE CATENA GROUP. 6/20/06

Water Supply Source

☐ Municipal ☑ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: 5 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 750 feet

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: IIIe, 50% REDUCTION, PPBPS. 6 LINES INSTALLED @ 50' ea. INSTALLED ACCORDING TO PLANS ON FILE.

DENR Authorized Agent: DAVID CORNELIUS, RS Signature: David Cornelius, RS

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 62663 WASPS App #: 1057

Primary ES assigned to project: DC

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: 2 pit Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR .278	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:

_____

_____

_____

_____

_____

IA issued date: _____

OP issued date: _____

Review performed by: _____ Date performed: _____

RECEIVED
JUN 2 7 2006
LUESA

Residential Subsurface Wastewater Treatment and Disposal System Design

for

9021 Cannongate Drive
Charlotte, North Carolina

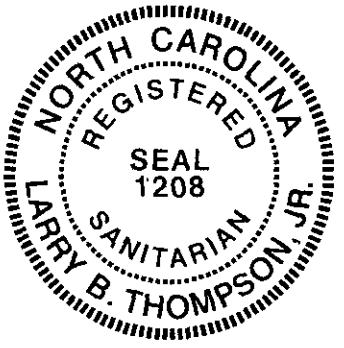
Tax Parcel # 139-052-20
File # 6266B
June 20, 2006

Prepared for:

Dustin T. Howie
6217 Randy Drive
Charlotte, NC 28215

Prepared by:

Larry Thompson, RS, PWS, SSIT
Thompson Environmental Consulting, Inc.
114 Orchard Ridge Road
Locust, NC 28097-8748
Phone: 704-301-4881
Fax: 704-888-1496



CC: Mr. David Cornelius, RS
Mecklenburg County Environmental Health

Details

In an application for an Improvement Permit filed with the Mecklenburg County Health Department (MCHD) by Dustin T. Howie, the subject property was proposed to be developed with a single family 4-bedroom residence served by a private well. Based upon this information, a soil and site evaluation was conducted by the MCHD where the lot was determined to be "Unsuitable" for the installation of a subsurface wastewater treatment and disposal system in accordance with the *Laws and Rules for Sewage Treatment, and Disposal Systems* 15A NCAC 18A .1900 (North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section). The lot was, however, classified as "Provisionally Suitable" for a 3-bedroom residence utilizing a Type III (g) innovative system.

Upon further investigation by Thompson Environmental Consulting, Inc. (TEC), it was determined that a sufficient amount of "Suitable" Group IV soils are located on the property which would allow for the installation of a Type III (e) prefabricated porous block panel system (PPBPS) for a 4-bedroom residence (initial and repair). It is the desire of the owner that the MCHD consider reclassifying this lot as "Suitable", allowing for the issuance of a Construction Authorization for a 4-bedroon residence, based upon the following proposal.

Location

The subject property is located at 9021 Cannongate in the town of Mint Hill, North Carolina. From NC 51, travel south on NC 218 approximately 0.9 mile, turn left onto SR 3109 (Bartlett Road). Cannongate Drive is the second street to the right after crossing the I-485 overpass. 9021 Cannongate Drive is located on your right.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, May 2006.

Onsite Wastewater Treatment and Disposal Systems; EPA 625/R-00/008 Design Manual, February 2002.

Design, Installation and Maintenance of the T & J Panel Wastewater Treatment System; Sixth Edition, published by T & J Panel.

Plans and Specifications

Septic Tank

- The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1500 gallons in capacity.
- The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
- It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

Pipe and Fittings

- All supply lines and distribution lines should be made of PVC.
- All joints must be properly "welded" utilizing the appropriate PVC cement for each application.

Distribution Method

- Wastewater from the septic tank will be directed to a distribution box for equal distribution to the (6) six drain lines.
- The distribution box shall be level, watertight, and the flow adjusted (equalized) at the time of the final inspection.

Backfill

- Backfill sand shall be a clean, washed, medium sand that is naturally occurring and falls within the gradation of ASTM C-33 specification (used in the ready mix industry and is readily available).

Drain Field Installation

- The drain fields have been previously laid out on-site utilizing metal stemmed flags. Once these areas have been approved by the MCHD, the property owner/builder should mark these areas and isolate them much as possible from construction traffic. Prior to the installation of these systems, the septic contractor shall contact the MCHD for a preconstruction conference at which time the drain field area will be re-verified.
- Under no circumstances shall any construction take place within the drain field area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the Mecklenburg County Health Department should be contacted for permission to proceed with the installation.
- The specified septic system drain field is a Type III(e) pre-fabricated porous block panel system (PPBPS).

- The septic system drain field will consist of (6) lateral trenches to be constructed 3 feet wide by 50 feet in length at a maximum trench depth of 28 inches.
- All laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
- The trenches should be left open for the final inspection by the MCHD.

PPBS Details

- The septic system drain field shall consist of a pre-fabricated permeable block panel system – specifically the 16 inch high panel system manufactured by T&J Panel Wastewater Treatment System, Patent No. 4013559; telephone: 1-800-222-2577. The installer must follow the manufacturer's guidelines for installing the T&J Panel System and should request an installation manual from the manufacturer prior to beginning construction.
- The drain field consists of ~~four~~ (6) lateral trenches to be constructed 3-feet wide by 50-feet in length. It is essential that the lateral trenches be constructed on contour with the land, with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.
- The maximum trench depth for this system shall be 28 inches and each trench shall be placed on 9 foot centers.
- Once trenches are dug, the side walls shall be raked and a light dusting of lime applied.
- Backfill the trench with 6-inches of sand and level to grade. Once leveled, place 1 x 4 or 6-inch boards on top of the sand the entire length of each trench. Once the grade boards have been set, the panels may be set into the trench. The panels should be placed 6-inches apart.
- Once the panels have been set, line the top chamber of each panel with 10 – 12 pounds of clean particle sand (medium sand blasting sand). Coverage depth should be approximately 1 inch thick. *Please note that this sand is not the same material specified for backfill.*
- Tar seal rope should be placed in the "U" outs of each end of the panel to form seals. Once the tar rope is in place, the PVC connections can be added and the seal completed by the addition of more tar rope on the top and sides of the pipe. Now that the connection and seals are complete, a block cap is placed on each end of the panel so that all openings are covered.

Final Landscaping

- The drain fields shall be shaped to shed rainwater and be free from low spots.
- The entire area of the drain fields should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

Utility Conflicts

- The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage. If there are any questions regarding preferred routes, contact the MCHD as soon as possible.

Maintenance

In General

- The septic tank shall be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 1/3 of the volume of the tank. In some situations, the tank may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner have the septic tank cleaned out annually.
- When it becomes necessary to clean the effluent filters, the filters should be removed and the accumulated debris washed back into the septic tank/washer box – not onto the lawn.
- The drain field areas should be maintained to prevent over growth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
- Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

Suggestions to the Homeowner

- As previously mentioned, if you plan to use a garbage disposal in your home you should plan to have your septic and pump tanks cleaned out annually. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
- Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
- Used motor oil or any oily liquids should not be disposed of in a septic tank.
- Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
- Run dishwashers and washing machines only when you have a full load.
- Use liquid detergents. Powdered detergents have binding agents in them that may precipitate in the drain field and lead to a premature failure.
- Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
- Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and, in some cases, certain additives have been found to be detrimental to the life of a system.

Design Specifics

Daily Design Flow:	480 GPD – 4 bedroom house
Septic Tank Size:	1500 gallons (2 compartments)
Pump Tank Size:	N/A
Effluent Loading Rate:	Design = 0.275 GPD per sq. ft.
Drain Line Required:	582 linear feet – use 300 feet (50 % reduction for the PPBPS)
Supply Length and Diameter:	Approx. 55 feet of 4 inch Sch. 40 PVC
Number of Drainlines:	(6) 3 feet wide x 50 feet long
Distribution Method:	Distribution Box
Number of Panels:	11 per line = 66 total

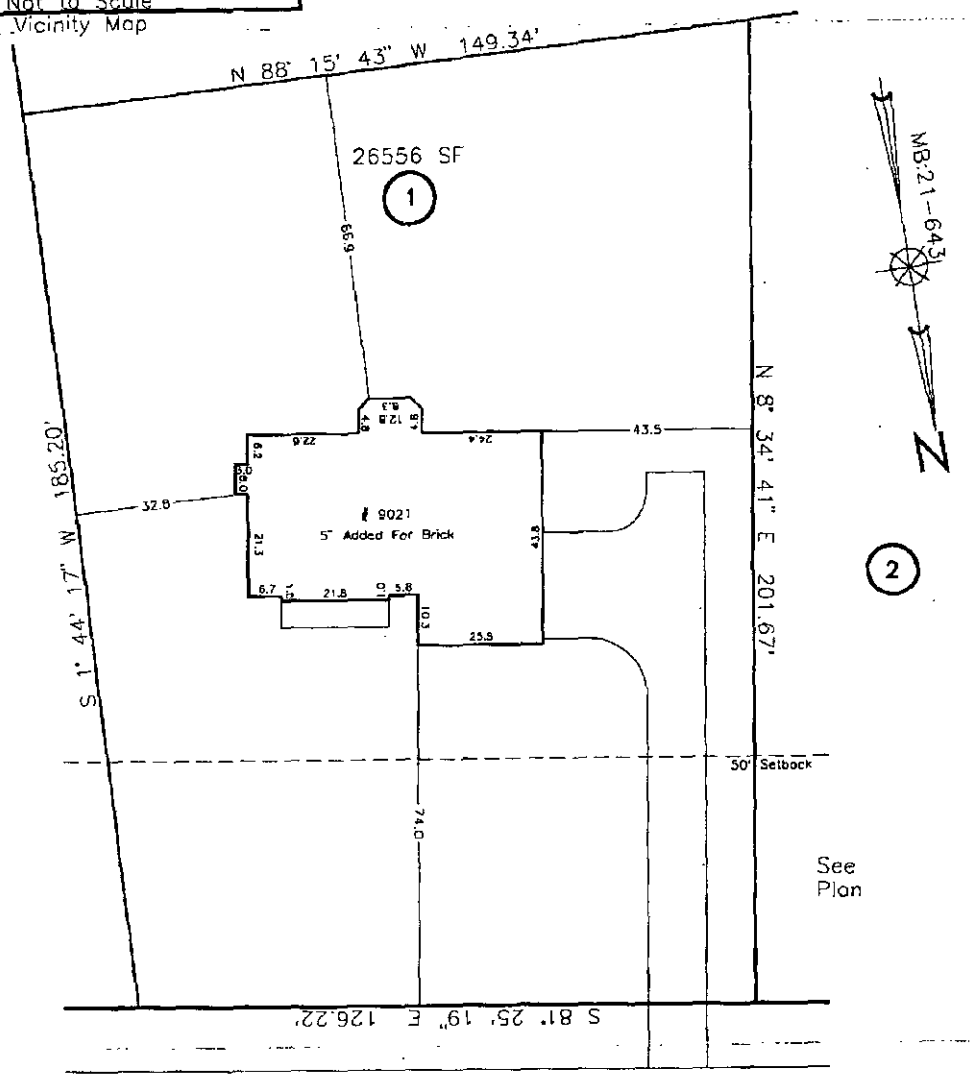
THIS IS TO CERTIFY THAT ON THE 15 DAY OF September 20 05 AN ACTUAL SURVEY WAS DONE UNDER MY SUPERVISION OF THE PROPERTY SHOW HEREON. THIS MAP IS NOT INTENDED TO MEET GS 47-30 RECORDING REQUIREMENTS.

SIGNED _____

BAUCOM-DAVIS & ASSOCIATES, PROFESSIONAL LAND SURVEYORS
WWW.BAUCOM-DAVIS.COM
5100-12 REAGAN DRIVE
CHARLOTTE, N.C. 28206
PHONE (704) 596-6088

LEGEND	
———	PROPERTY LINE
S.I.P.	RE-SET IRON PIN
E.I.P.	EXISTING IRON PIN
CLOSURE	EXCEEDS 1'in 10,000'
P.D.E.	PUBLIC DRAINAGE EASEMENT
E.C.M.	EXISTING CONCRETE MONUMENT
— —	ADJOINER PROPERTY LINE BY DEED OR PLAT

Not to Scale
Vicinity Map



60 Public R/W

REVISED:6/05/06 Per Dustin to 74' Setback

Canongate Drive

Plot Plan SURVEY
OF
Lot 1, Need Map
Mint Hill, Mecklenburg County, NC

SCALE 1" = 30'

THE PROPERTY OF Dustin Howie

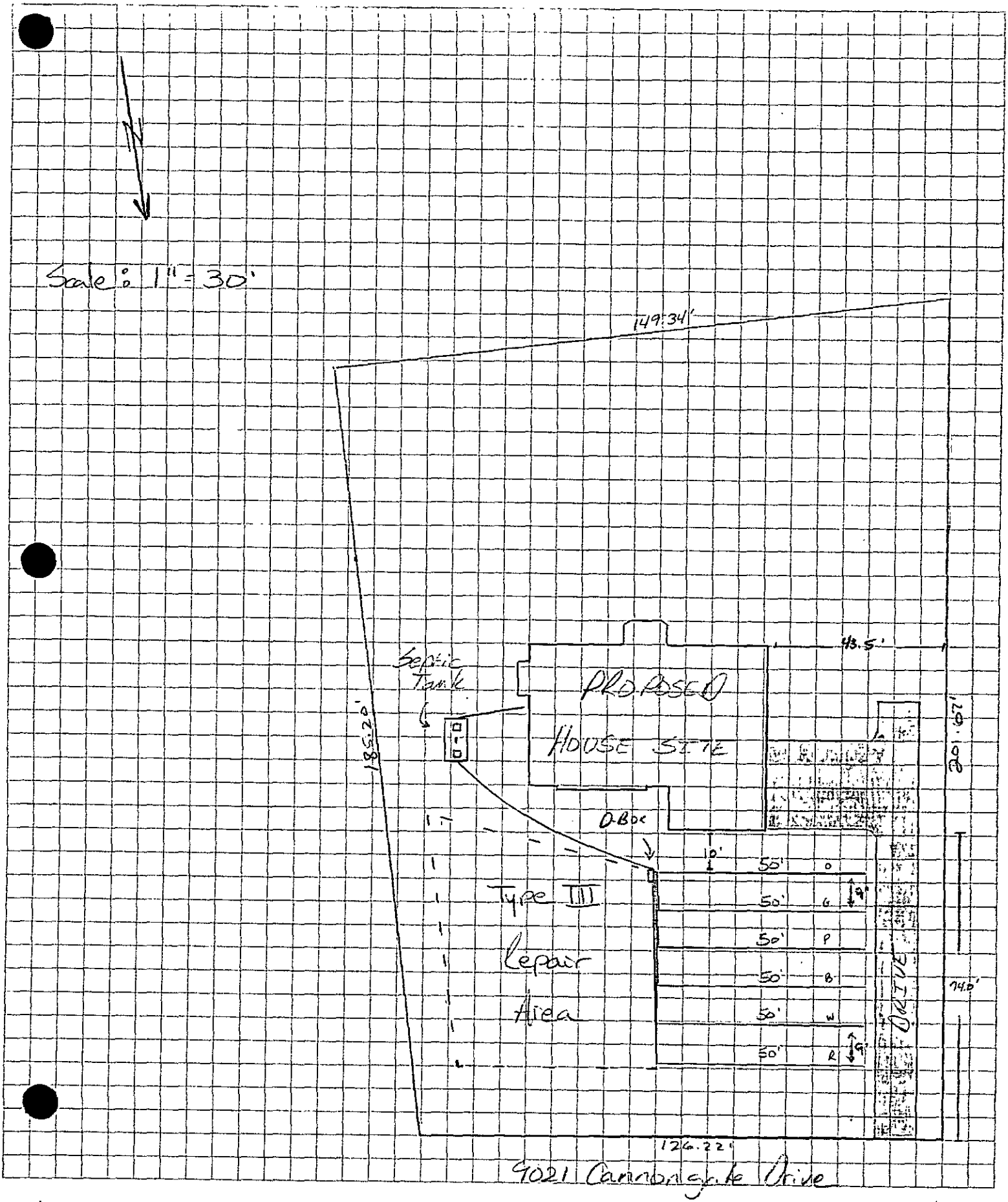
MAP RECORDED IN BOOK 21 AT PAGE 643 DEED RECORDED IN BOOK 5593 PAGE 241

Drawn By: PAT

Job Number: 58881

Thompson Environmental Consulting, Inc.
114 Orchard Ridge Road
Locust, NC 28097-8748

File Number: 6266B
Location: 9021 Cannongate Drive
Date: June 19, 2006



Division of Environmental Health
On-site Wastewater Section

Property ID: 139-052-20
Lot #:
File #: 6266B
Code: 2

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Dustin T. Howie
Address: 6217 Randy Drive, Charlotte, N. C. 28215
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Location of Site: 9021 Cannongate Drive
Applicant:
Date Evaluated: 1/11/06
Property Size: .6a
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [x] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY 1941 Structure/ Texture	1941 Consistence Mineralogy	OTHER PROFILE FACTORS 1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr. Horiz	Profile Class & LTAR
1	LS, 8	0-6	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	US, IV
		6-48	ABK/SBK/C	FI/SEXP/S/P					
		APPROX 4" OF PLATY STRUCTURE at 32"							
2	"	0-6	GR/SCL	FR/SEXP/SS/SP	>51" TO SOIL WETNESS	33	US	"	"
		6-33	PL/ABK/SBK/C	FI/SEXP/S/P					
		33-51	M/CL	FR/SEXP/SS/SP					
3	"	0-4	GR/SCL	"	>48" TO SOIL WETNESS	48	N/A	"	"
		4-48	PL/ABK/C	FI/SEXP/S/P					
4	"	0-12	DISTURBED	GRAVEL, ETC	>51" TO SOIL WETNESS	51	"	"	"
		12-51	PL/ABK/C	FI/SEXP/S/P					
5	"	0-9	GR/SCL	FR/SEXP/SS/SP	>43" TO SOIL WETNESS	43	"	"	PS, IV
		9-43	ABK/SBK/C	FI/SEXP/S/P					.275GPD/FT^2
6	"	0-15	GR/SCL	FR/SEXP/SS/SP	>50" TO SOIL WETNESS	50	"	"	"
		15-50	SBK/ABK/C	FI/SEXP/S/P					
7	"	0-10	GR/SCL	FR/SEXP/SS/SP	>44" TO SOIL WETNESS	44		"	"
		10-44	ABK/SBK/C	FI/SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	US
System Type(s)		
Site LTAR	.275GPD/FT^2	.275GPD/FT^2

Other Factors (.1946):
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 1/12/2006
Others Present: J. Bjorneboe, K. Garret, A. Lee

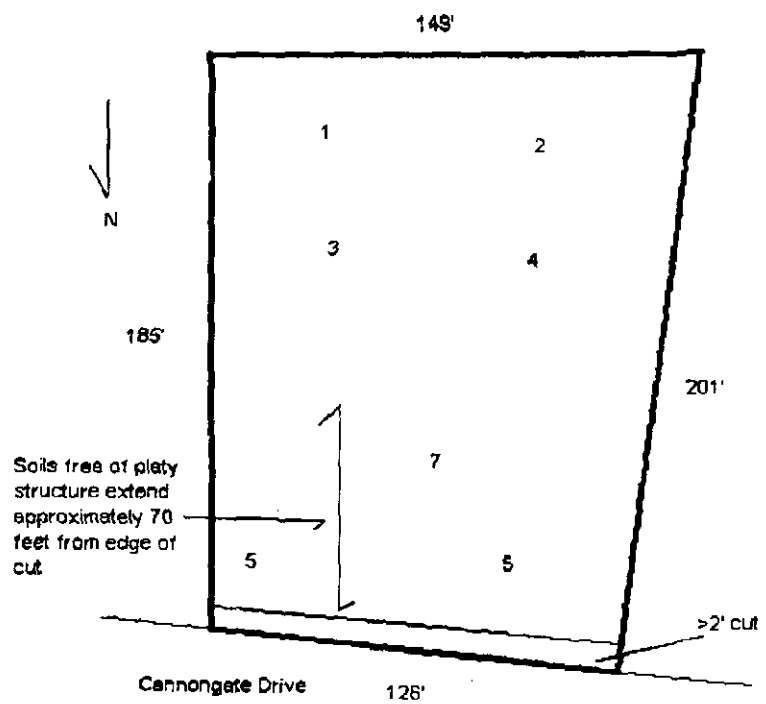
Sheet: 2 of 2
FILE #: 6266B

COMMENTS:
100% repair

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-Food 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 #: **30001057** GWS File #: **6266B** Tax Parcel #: **139-052-20**

- 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):** 7/19/2011

Type of Installation: Residential - New System Lot Number: 1

Structure Type: HOUSE Size (ft^2): 3546 # Bedrooms: 4 # Occupants: 3

Building Foundation: Crawl Space Water Supply:

II. Initial System Type: PPBPS (gravity) **System Classification:** IIIe

Initial System Specifications:

Design Flow (gpd): 480 LTAR (gpd/ft^2): 0.275 Septic Tank Size (gal): 1500 Pump Tank Size (gal): N/A

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 873 Total Trench Length (ft): 291

Maximum Trench Depth (in): 28 Depth of Media (in): N/A Distribution Device: Distribution Box

III. Repair System Type: PPBPS (gravity) **System Classification:** IIIe

Repair System Specifications:

Design Flow (gpd): 480 LTAR (gpd/ft^2): 0.275 Septic Tank Size (gal): 1500 Pump Tank Size (gal): N/A

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 873 Total Trench Length (ft): 291

Maximum Trench Depth (in): 28 Depth of Media (in): N/A Distribution Device: Distribution Box

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: David Cornelius

Signature:

Date Issued: 7/19/2006

Owner/Legal Agent: DUSTIN HOWIE
Print Name

Signature:

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 #: **30001057** GWS File #: **6266B**

IV. Permit Conditions/Comments:

- *Owner agreement forms* for site reclassification shall be on file prior to issuance of Construction Authorization.
- 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.
- Install according to plans on file submitted by Larry Thompson, 6/20/06.

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: David Cornelius

Signature: _____

Date Issued: 7/19/2006

Owner/Legal Agent: DUSTIN Howie
Print Name

Signature: _____

FOR REGISTRATION JUDITH H. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2006 DEC 29 12:18 PM
BK:21578 PG:300-303 FEE:$20.00

INSTRUMENT # 2006270276

2006270276

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

WASTEWATER TREATMENT AND DISPOSAL SYSTEM DESIGN AGREEMENT: 15A NCAC 18A .1948 AN ANY OF THE FOLLOWING RULES: .1956; .1957(a); .1957(b); OR .1957(c); OR .1969

FILE #: 62660

PARCEL #: 139-052-20

The undersigned, Dustin Tyrell Howie, owner of property located at 9021 Canoe Gate Drive, (the "site") and described in an instrument recorded in Book 19743 at Page 843, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq.; that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as 'provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

The undersigned further acknowledges that the proper design, construction, operation and maintenance of such septic tank system is the responsibility of the designer, owner, developer, installer, or user of the system, as applicable, and that neither the Department nor its officials, employees, or agents warrant or guarantee that the said system installed pursuant to the permit issued by the Department will function in a satisfactory manner for any given period of time or that the Department, its officials, employees or agents assume any liability for any damages of any kind which are caused, or which may be caused, by a malfunction of such system.

The undersigned further acknowledges that the following will apply to the site:

This instrument was prepared by: Dustin Tyrell Howie

Mail after recording to: 6017 Foundry Drive

Charlotte, NC 28215

- Any changes on the property may make the Improvement Permit null and void and may make the Improvement Permit subject to revocation.

- Do not grade, cut, fill, pave, construct a building or deck, dig a well, install a swimming pool or otherwise cover or disturb the soil (except for planting and maintaining grass or other ground covers) in a manner which will adversely affect the repair area or area where the septic tank system is located.

- When a private certified operator is required, no improvement permit for the designated repair shall be issued unless there is a private certified operator to carry out this management program in the service area where the proposed system is to be located. (Refer to rule .1961, Maintenance of Sewage Systems," for further information.)

- Additional fees will be required according to the Mecklenburg County user fee schedule applicable at the time for the issuance of a repair permit for any subsequent repairs to the sewage treatment and disposal system or for installation of a replacement system.

- At the time repairs to the sewage treatment and disposal system are to be made or a replacement system installed, the regulation in effect at the time will govern the repairs or installation of a replacement system.

The undersigned further agrees for himself, his heirs and assigns that he shall indemnify and hold harmless the Department, its employees, and officials, as well as Mecklenburg County and its employees and officials, for any damages or other claims of any person or persons whatsoever arising out of the installation, operation, or failure of said septic tank system.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, this 29 day of December, 20 06.

_____ _____ (SEAL)
(Corporate Name)

_____ (SEAL)

By: _____ _____ (SEAL)

_____ President _____ (SEAL)

ATTEST:

_____

_____ Secretary

(Corporate Seal)

STATE OF NORTH CAROLINA

COUNTY OF Mecklenburg

I, Heather Lynn Smith, a Notary Public for said County and State, do hereby certify that Dustin Trent Howie personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal this 29 day of December, 20 06.

HEATHER LYNN SMITH Mecklenburg County NOTARY PUBLIC My Commission Expires 8-10-2009 NORTH CAROLINA

_____ Notary Public

My Commission Expires:

8.10.2009

STATE OF NORTH CAROLINA

COUNTY OF _____

I, _____, a Notary Public for said County and State, do hereby certify that _____ personally came before me this date and acknowledged that he is _____ Secretary of _____, a North Carolina corporation, and that by authority duly given and as the act and deed of said corporation, the foregoing instrument was signed in its name by its _____ President, sealed with its corporate seal, and attested by _____ as its _____ Secretary.

WITNESS my hand and notarial seal this _____ day of _____, 20 _____.

_____ Notary Public

My Commission Expires:

_____

REVISED 8-13-02

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 07/20/06
Receipt #: 45160
Check / Auth #: CHECK 1623
Received By: AIDOOJK

Amount: 150.00
Tendered: 150.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: HOWIE DUSTIN
Attn:
Address: 6217 RANDY DRIVE
Address:
City/State/Zip: CHARLOTTE, NC 28215

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr 9021 CANNONGATE DRIVE		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
25.00					

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 07/20/06
Receipt #: 45161
Check / Auth #: CHECK 1623
Received By: AIDOOJK

Amount: 150.00
Tendered: 150.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: HOWIE DUSTIN
Attn:
Address: 6217 RANDY DRIVE
Address:
City/State/Zip: CHARLOTTE, NC 28215

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval 9021 CANNONGATE DRIVE		1	150.00	150.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
25.00					

FEE: 300.00
DATE: 7/20/2006

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

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 6266B

PERMIT NUMBER: 30001057

PARCEL NUMBER: 13905220

JOB LOCATION INFORMATION

ADDRESS: 9021 CANNONGATE DR

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28227

ISSUED TO: Dustin T. Howie

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 7/20/2006

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30001057, 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. AN INSTALLATION APPROVAL MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

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, NOT TO EXCEED 60 MONTHS.
   *CONSTRUCTION AUTHORIZATION EXPIRATION DATE: 7/19/2011

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

Sheet: 1 of
Property ID: 139-052-20
Lot #:
File #: 6266B
Code: 2

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Dustin T. Howie
Applicant:
Address: 6217 Randy Drive, Charlotte, N. C. 28215
Date Evaluated: 1/11/06
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .6a
Location of Site: 9021 Cannongate Drive
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [x] 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	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-6	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	US, IV
		6-48	ABK/SBK/C	FI/SEXP/S/P					
		APPROX 4" OF PLATY STRUCTURE at 32"							
2	"	0-6	GR/SCL	FR/SEXP/SS/SP	>51" TO SOIL WETNESS	33	US	"	"
		6-33	PL/ABK/SBK/C	FI/SEXP/S/P					
		33-51	M/CL	FR/SEXP/SS/SP					
3	"	0-4	GR/SCL	"	>48" TO SOIL WETNESS	48	N/A	"	"
		4-48	PL/ABK/C	FI/SEXP/S/P					
4	"	0-12	DISTURBED	GRAVEL. ETC	>51" TO SOIL WETNESS	51	"	"	"
		12-51	PL/ABK/C	FI/SEXP/S/P					
5	"	0-9	GR/SCL	FR/SEXP/SS/SP	>43" TO SOIL WETNESS	43	"	"	PS, IV .275GPD/FT^2
		9-43	ABK/SBK/C	FI/SEXP/S/P					
6	"	0-15	GR/SCL	FR/SEXP/SS/SP	>50" TO SOIL WETNESS	50	"	"	"
		15-50	SBK/ABK/C	FI/SEXP/S/P					
7	"	0-10	GR/SCL	FR/SEXP/SS/SP	>44" TO SOIL WETNESS	44		"	"
		10-44	ABK/SBK/C	FI/SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIe	IIIg
Site LTAR	.275GPD/FT^2	.275GPD/FT^2

Other Factors (.1946):
Site Classification (.1948): Provisionally Suitable
Evaluated By: W. R. Marlin, LSS 1/12/2006.
Others Present: J. Bjorneboe, K. Garrett, A. Lee
David Cornelius, RS

David Cornelius, RS

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

Sheet: 1 of
Property ID: 139-052-20
Lot #:
File #: 6266B
Code: 2

AC5

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Dustin T. Howie
Applicant:
Address: 6217 Randy Drive, Charlotte, N. C. 28215
Date Evaluated: 1/11/06
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .6a
Location of Site: 9021 Cannongate Drive
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [x] 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	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-6	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	US, IV
		6-48	ABK/SBK/C	FI/SEXP/S/P					
		APPROX 4" OF PLATY STRUCTURE at 32"							
2	"	0-6	GR/SCL	FR/SEXP/SS/SP	>51" TO SOIL WETNESS	33	US	"	"
		6-33	PL/ABK/SBK/C	FI/SEXP/S/P					
		33-51	M/CL	FR/SEXP/SS/SP					
3	"	0-4	GR/SCL	"	>48" TO SOIL WETNESS	48	N/A	"	"
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4	"	0-12	DISTURBED	GRAVEL. ETC	>51" TO SOIL WETNESS	51	"	"	"
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5	"	0-9	GR/SCL	FR/SEXP/SS/SP	>43" TO SOIL WETNESS	43	"	"	PS, IV
		9-43	ABK/SBK/C	FI/SEXP/S/P					.275GPD/FT^2
6	"	0-15	GR/SCL	FR/SEXP/SS/SP	>50" TO SOIL WETNESS	50	"	"	"
		15-50	SBK/ABK/C	FI/SEXP/S/P					
7	"	0-10	GR/SCL	FR/SEXP/SS/SP	>44" TO SOIL WETNESS	44		"	"
		10-44	ABK/SBK/C	FI/SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	US
System Type(s)		
Site LTAR	.275GPD/FT^2	.275GPD/FT^2

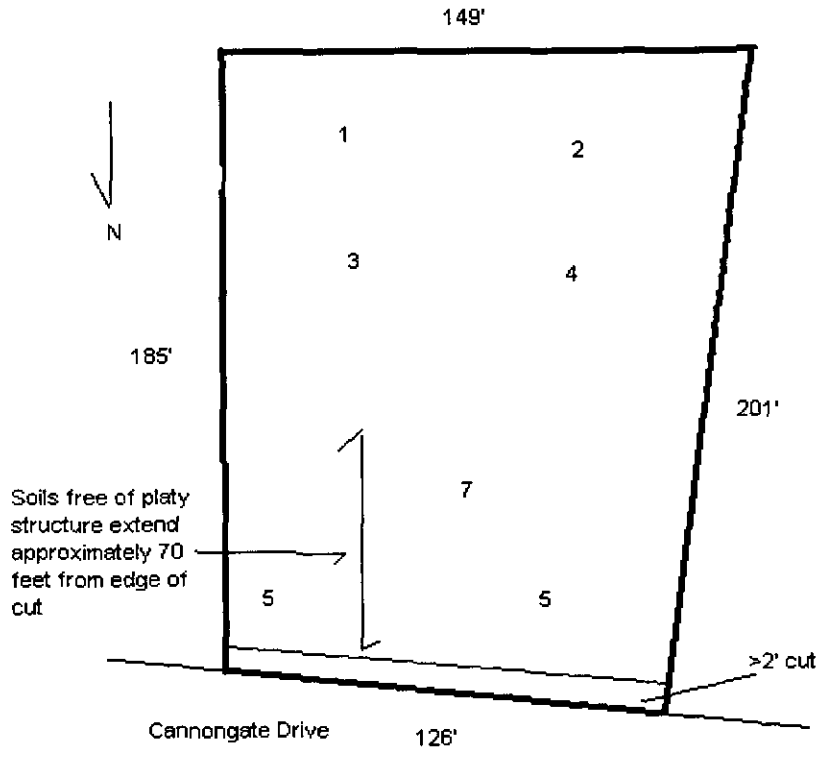
Other Factors (.1946):
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 1/12/2006, W. R. Marlin
Others Present: J. Bjorneboe, K. Garret, A. Lee

COMMENTS:
100% repair

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-Food 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

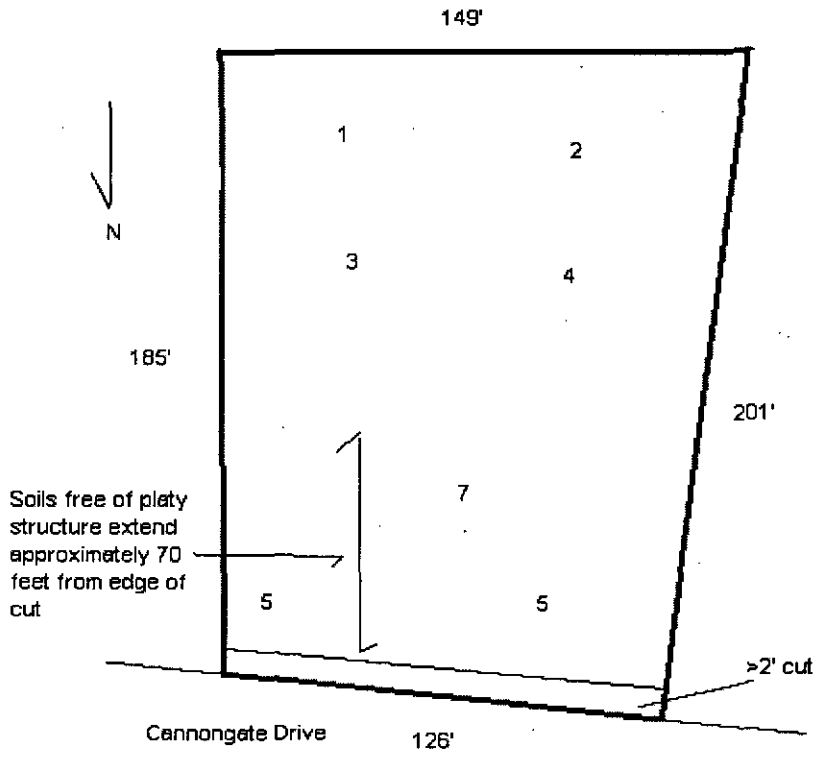


COMMENTS:
100% repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
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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
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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



1057

GWS – RES. APP 07/05

SEPTIC FEE: 200.00
DATE: 12/16/05
CRT [ ]: Check 1547 JKA

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

FILE # 6266B

WELL FEE:
DATE:
CRT [ ]:

SEPTIC / TYPE APPLICATION: ☐ NONE ☑ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFY PLOT PLAN

WELL / TYPE APPLICATION: ☐ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

JOB LOCATION INFORMATION:

TAX/PARCEL #: 13905220
STREET ADDRESS: 9021 Cannongate Drive
CITY: Mint Hill
STATE: NC ZIP: 28227
SUBDIVISION OR MOBILE HOME PARK NAME: DORIS HOKE PROPERTY
LOT #: 1
TOWNSHIP:

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

BUILDING INFORMATION:

TYPE OF BUILDING:

☐ SINGLE MOBILE HOME (S) ☐ MODULAR HOME (M)
☐ DOUBLE WIDE (D) ☐ MULTIPLE FAMILY (U)
☑ HOUSE (H) ☐ OTHER

HEATED SQUARE FOOTAGE: 3546
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 3

FOUNDATION FOR RESIDENCE:

☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:

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

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☒ NO TYPE:

WATER SUPPLY:

☐ MUNICIPAL (M) ☐ PUBLIC (C) ☑ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER SPRINGS (O)

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

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES	☒ NO	WELLS, SPRINGS, OR WATER LINES	☐ YES	☒ NO
EXISTING WASTEWATER SYSTEMS	☐ YES	☒ NO	DESIGNATED WETLANDS	☐ YES	☒ NO
EASEMENTS OR RIGHT-OF-WAYS	☐ YES	☒ NO	GRADING/SOIL REMOVAL PERFORMED	☐ YES	☒ NO

PROPERTY OWNER:

NAME: DUSTIN T. HOWIE
ADDRESS: 6217 RANDY DRIVE
CITY: Charlotte
STATE: NC ZIP: 28215
HOME PHONE: 704 566-0024 WORK PHONE:
MOBILE PHONE: 704-361-1704 FAX:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 11-1987

WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

*An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

12-14-05

Owner's/Agent's Signature Date

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT & NATURAL RESOURCES DIVISION
OF ENVIRONMENTAL HEALTH ON-SITE
WASTEWATER SECTION

*A Well Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Owner's/Agent's Signature Date

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

THIS IS TO CERTIFY THAT ON THE 15 DAY OF September 20 05 AN ACTUAL SURVEY WAS DONE UNDER MY SUPERVISION OF THE PROPERTY SHOW HEREON. THIS MAP IS NOT INTENDED TO MEET GS 47-30 RECORDING REQUIREMENTS.

SIGNED _____

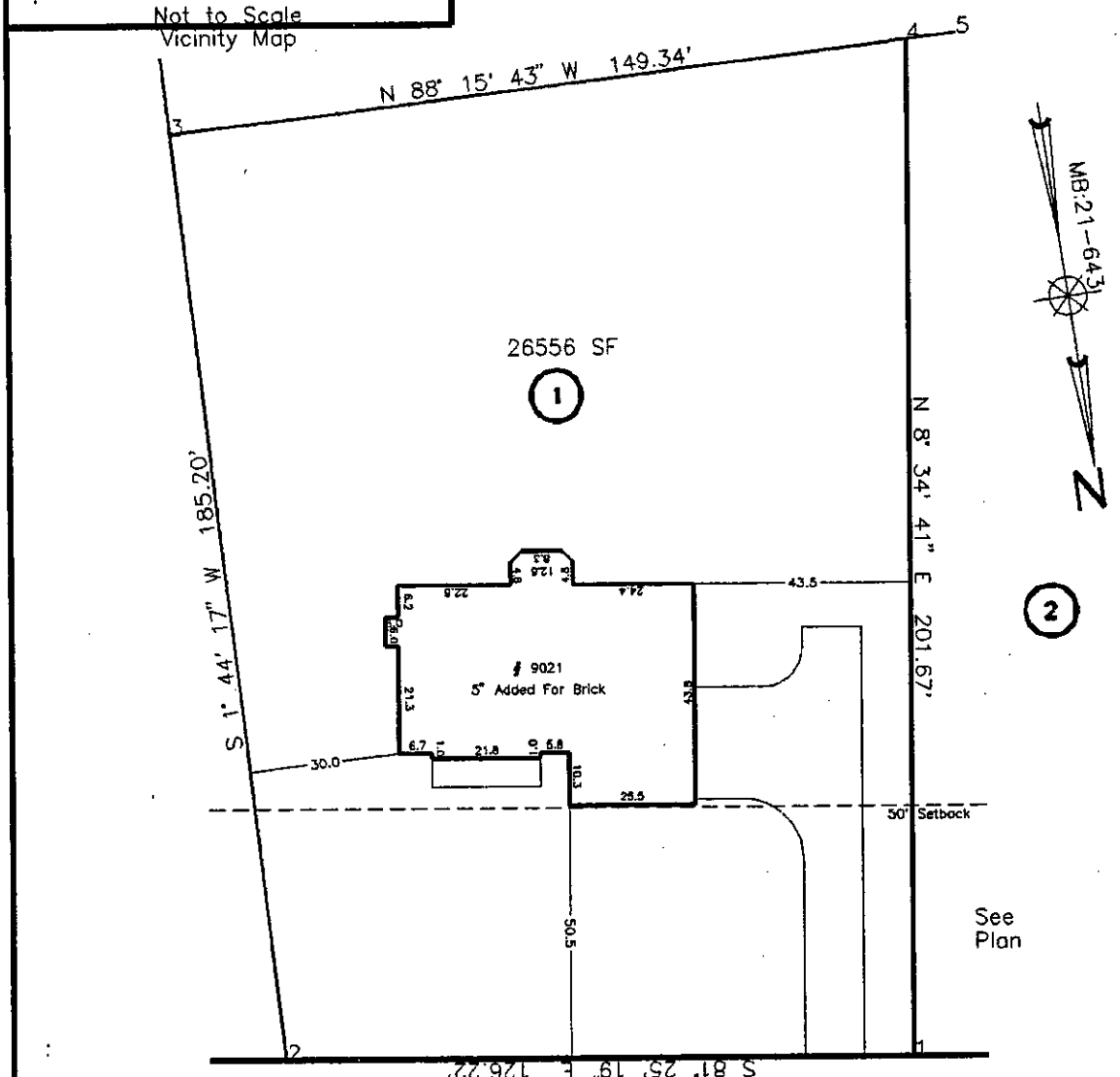
BAUCOM-DAVIS & ASSOCIATES, PROFESSIONAL LAND SURVEYORS
WWW.BAUCOM-DAVIS.COM
5100-12 REAGAN DRIVE
CHARLOTTE N.C. 28206
PHONE (704) 596-8088

LEGEND

———	PROPERTY LINE	
S.I.P.	RE-SET IRON PIN	
E.I.P.	EXISTING IRON PIN	
CLOSURE	EXCEEDS 1'in 10,000'	
P.D.E	PUBLIC DRAINAGE EASEMENT	
E.C.M.	EXISTING CONCRETE MONUMENT	
— — —	ADJOINER PROPERTY LINE BY DEED OR PLAT	

6266B

Not to Scale
Vicinity Map



TAX PARCEL # 13905220

60 Public R/W

Canongate Drive

Plot Plan SURVEY OF

Lot 1, Need Map

Mint Hill, Mecklenburg County, NC

SCALE 1"=30'

THE PROPERTY OF Dustin Howie

MAP RECORDED IN BOOK 21 AT PAGE 643 DEED RECORDED IN BOOK 5593 PAGE 241

Drawn By: PAT

Job Number: 58881