704-633-2657

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

BM - septic

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

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

2. WELL / TYPE APPLICATION: ☐ N/A ☑ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

3. JOB LOCATION INFORMATION:

TAX PARCEL NUMBER: 053-174-02
STREET ADDRESS: 10235 ~~HARBOUR DRIVE~~
CITY: Charlotte / Harbor DR.
STATE: NC ZIP:
SUBDIVISION NAME:
LOT #: 15 Block COVE LOT SIZE (acres): 4.85
TOWNSHIP: Paw Creek TWP
☑ 0-MECKLENBURG ☐ 3-CORNELIUS ☐ 6-HUNTERSVILLE
☐ 1-CHARLOTTE ☐ 4-PINEVILLE ☐ 7-MINT HILL
☐ 2-DAVIDSON ☐ 5-MATTHEWS

4. BUILDING INFORMATION:

BUILDING TYPE:
☐ SINGLE MOBILE HOME ☐ MODULAR HOME
☐ DOUBLE WIDE ☐ MULTIPLE FAMILY
☑ HOUSE ☐ OTHER _____
HEATED SQUARE FOOTAGE: 3178 HTD.
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 2
FOUNDATION TYPE:
☐ CONCRETE SLAB ☐ BASEMENT WITH PLUMBING
☑ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

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

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

6. WATER SUPPLY: ☐ MUNICIPAL ☒ PRIVATE WELL ☐ PUBLIC WELL ☐ SHARED WELL ☐ OTHER _____

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

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

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

8A. RANK: ____ ____ ____ ____ ____

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

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES	☒ NO	GRADING/SOIL REMOVAL PERFORMED	☐ YES	☒ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	☐ YES	☒ NO	JURISDICTIONAL WETLANDS	☐ YES	☒ NOT SURE
WELLS, SPRINGS, OR WATER LINES	☐ YES	☒ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	☐ YES	☒ NO
EASEMENTS OR RIGHT-OF-WAYS	☒ YES	☐ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	☐ YES	☒ NO
CHEMICAL/PETROLEUM STORAGE TANKS	☐ YES	☒ NO	KNOWN UNDERGROUND CONTAMINATION	☐ YES	☒ NO
WASTE STORAGE	☐ YES	☒ NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	☐ YES	☒ NO

* 10. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? Dec 11 1992 Dec 31, 1992 ☐ UNKNOWN

11. WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? _____ ☐ N/A customer owns property

12. PROPERTY OWNER: Ryerson

NAME: DAVID + Shanan Ryerson
ADDRESS: 2360 Murphy RD.
CITY: Corning
STATE: NY ZIP: 14830
HOME PHONE: 607-562-3223
WORK PHONE:
MOBILE PHONE: 607-426-3223
FAX:

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Tim Whalen Homes Builder
ADDRESS:
CITY:
STATE: ZIP: N/A
HOME PHONE:
WORK PHONE: 704-400-8932
MOBILE PHONE:
FAX:

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

Revised on: 7/1/08

14. SEPTIC SYSTEM PERMIT APPLICATION:

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

TLW president (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

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

TLW president (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below.

Property Owner's or Owner's Legal Representative Signature — Date: 9-8-08

X president T. Whelan Homes Inc

OFFICE USE ONLY

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

SEPTIC APPLICATION FEES RECEIVED: $ 250.00 DATE FEE RECEIVED: 9-12-08

WELL APPLICATION FEES RECEIVED: $ 550.00 DATE FEE RECEIVED: 9-12-08

APPLICATION PROCESSED BY: Annette Gladney

GWS FILE NUMBER ASSIGNED: 5621B

APPLICATION ID NUMBER ASSIGNED: 3867

COMMENTS:

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

Revised on: 7/1/08

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

Sheet: 1 of 3
Property ID: 053-147-02
Lot #:
File #: 5621B
AppID: 3867

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: David and Sharon Ryerson — Applicant:
Address: 2360 Murphy Rd., Corning, NY 14830 — Date Evaluated: 9/17/2008
Proposed Facility: Residence — Design Flow (.1949): 480 gpd — Property Size: 4.85a
Location of Site: Harbor Drive — Property Recorded:
Water Supply: [-] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY 1941 1941 Structure/ Texture	1941 Consistence Mineralogy	PROFILE FACTORS b 1942 Soil Wetness/ Color	1943 Soil Depth (IN)	1956 Sapro Class	1944 Restr Horiz	Profile Class & LTAR
1	LS,5	0-3	GR/SCL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48	N/A	NONE	PS,IV
		3-48	SBK/C	FI/S/P/SEXP					.3 GPD/FT^2
2	"	0-16	GR/SCL	FR/SS/SP/SEXP	>43" TO SOIL WETNESS	43	"	"	"
		16-43	SBK/C	FI/S/P/SEXP					
		43+	M/SAP						
3	"	0-2	GR/SCL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48	"	"	"
		2-48	SBK/C	FI/S/P/SEXP					
4	"	0-2	GR/SCL	FR/SS/SP/SEXP	"	"	"	"	"
		2-48	SBK/C	FI/S/P/SEXP					
5	"	0-18	GR/SL	FR/SS/SP/SEXP	>24" TO SOIL WETNESS	24+	"	"	US
		18-24	ABK/C	VFI/VS/VP/EXP					
6	"	0-21	GR/SL	FR/SS/SP/SEXP	10YR 7/2 @ 14"	24+	"	"	"
		21-24	ABK/C	VFI/VS/VP/EXP					
7	"	0-3	GR/SL	FR/SS/SP/SEXP	10YR 7/1 @ 23"	25+	"	"	"
		3-23	SBK/ABK/C	FI/S/P/SEXP					
		23-25	ABK/C	VFI/VS/VP/EXP					
8	"	0-8	GR/CL	FR/SS/SP/SEXP	>38" TO SOIL WETNESS	38	"	"	US,IV
		8-38	SBK/ABK/C	FI/S/P/SEXP					.2 GPD/FT^2
		38+	M/SAP						
					SITE LTAR 1-4	.3 GPD/FT2	SITE LTAR	8-15	.2 GPD/FT2

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIb	IV a
Site LTAR	.3 GPD/FT2	.075 GPD/FT2/LPP

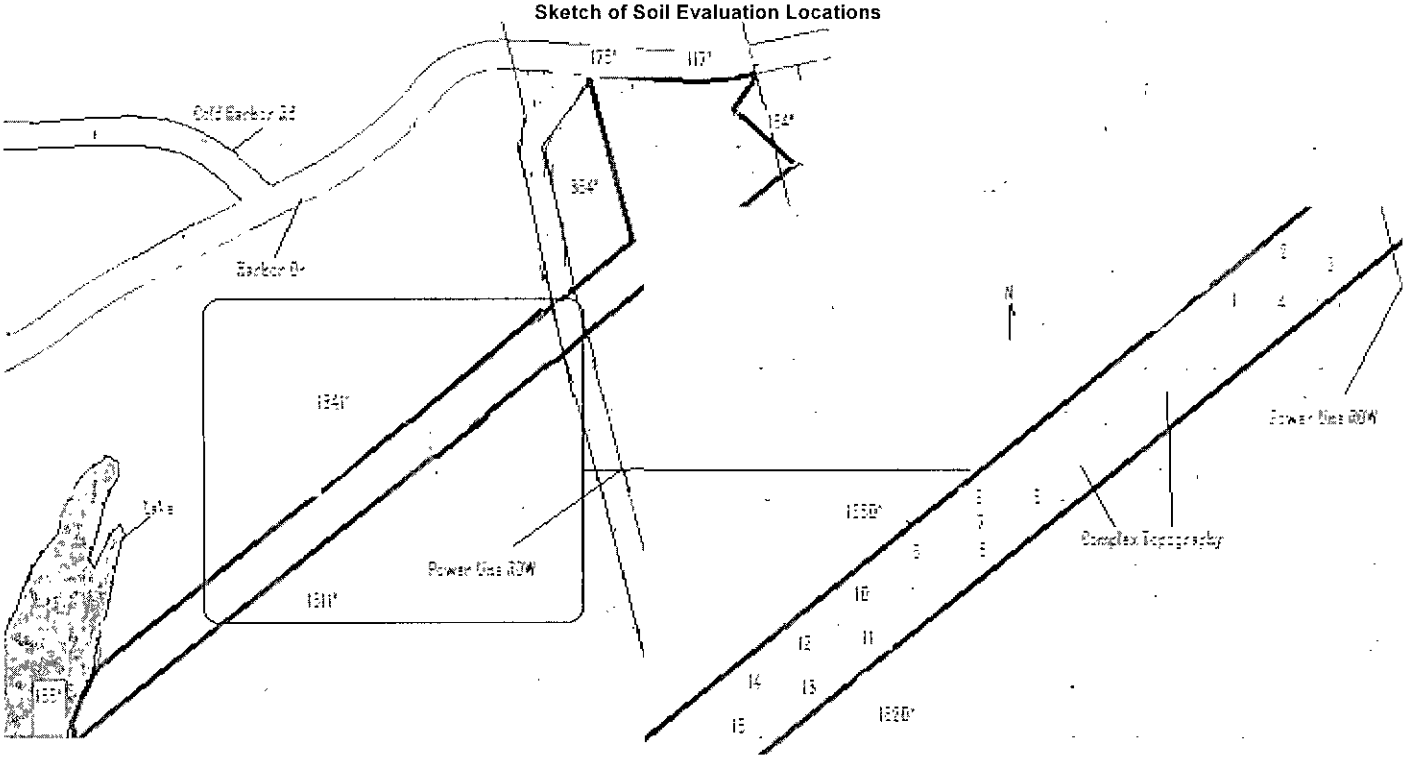
Other Factors (.1946):
Soil Evaluation By: C.Sherrill, RS,LSS
Others Present: B.Marlin
Site Classification (.1948): PS
Site Evaluation By: C.Sherrill, RS,LSS
Others Present: None

COMMENTS: 100% Repair Required

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

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

Sketch of Soil Evaluation Locations



SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
CONTINUED

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY 1941		OTHER PROFILE FACTORS				
			1941 Structure/ Texture	1941 Consistence Mineralogy	1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr Horiz	Profile Class &LTAR
9	LS,5	0-6	GR/CL	FR/SS/SP/SEXP	>41" TO SOIL WETNESS	41	N/A	NONE	PS,IV
		6-41	SBK/ABK/C	FI/S/P/SEXP					.2 GPD/FT^2
		41+	M/SAP						
10	"	0-12	GR/SCL	FR/SS/SP/SEXP	>26" TO SOIL WETNESS	26	"	"	US,IV
		12-26	SBK/ABK/C	FI/S/P/SEXP					.2 GPD/FT2
		26+	M/SAP						
11	"	0-8	GR/SCL	FR/SS/SP/SEXP	>48" TO SOIL WETNESS	48	"	"	PS,IV
		8-48	SBK/ABK/C	FI/S/P/SEXP					.2 GPD/FT2
12	"	0-8	GR/SCL	FR/SS/SP/SEXP	>24" TO SOIL WETNESS	24	"	"	US,IV
		8-24	SBK/ABK/C	FI/S/P/SEXP					.2 GPD/FT^2
		24+	M/SAP						
13	"	0-17	GR/SCL	FR/SS/SP/SEXP	>34" TO SOIL WETNESS	34	"	"	"
		17-34	SBK/ABK/C	FI/S/P/SEXP					
		34+	M/SAP						
14	"	0-12	GR/SCL	FR/SS/SP/SEXP	>33" TO SOIL WETNESS	33	"	"	"
		12-33	SBK/ABK/C	FI/S/P/SEXP					
		33+	M/SAP						
15	"	0-12	GR/SCL	FR/SS/SP/SEXP	>34" TO SOIL WETNESS	34	"	"	"
		12-34	SBK/ABK/C	FI/S/P/SEXP					
		34+	M/SAP						

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 #: **30003867** GWS File #: **5621B** Tax Parcel #: 053-174-02

- 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):** 10/7/2013

Type of Installation: Residential - New System Lot Number: 15

Structure Type: HOUSE Size (ft^2): 3178 # Bedrooms: 4 # Occupants: 2

Building Foundation: Crawl Space Water Supply: ~~Community~~ Private

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

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1200	Total Trench Length (ft):	400
Maximum Trench Depth (in):	30	Depth of Media (in):	12	Distribution Device:	Pressure Manifold		

III. Repair System Type: Low Pressure Pipe (LPP) **System Classification:** IVa

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.075	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1000
Trench Width (ft):	2	Trench Spacing (ft):	5	Absorption Area (ft^2):	6400	Total Trench Length (ft):	3200
Maximum Trench Depth (in):	12	Depth of Media (in):	8	Distribution Device:	Manifold (LPP Distri		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

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

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Sherrill Owner/Legal Agent: Timothy L Whelan

Print Name

Signature: Signature: 10-9-08

Date Issued: 10/7/2008 President

T. L. Whelan Homes Inc.

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 #: **30003867** GWS File #: **5621B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 5 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of repair system requires the installation of a pump tank and all associated components. This type of system will require routine inspections by our office. The system owner is responsible for all fees associated with these inspections.
- This type of repair system requires the property owner to obtain a contract with a Certified Operator to perform routine inspections and maintenance on the system.
- This type of repair system requires periodic inspections by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.

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

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- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Sherrill
Signature: Chris M Sherrill
Date Issued: 10/7/2008

Owner/Legal Agent: Timothy L. Whelan
Print Name
Signature: President
T. Whelan Homes Inc. 10-09-08



MICHAEL ATHANAS & ASSOCIATES, INC.
LICENSED SOIL SCIENTIST
1999 CANDLEWICK DRIVE
FORT MILL, SC 29715
803-802-4403 (office)
803-802-4402 (fax)

GWS Septic System Design Review

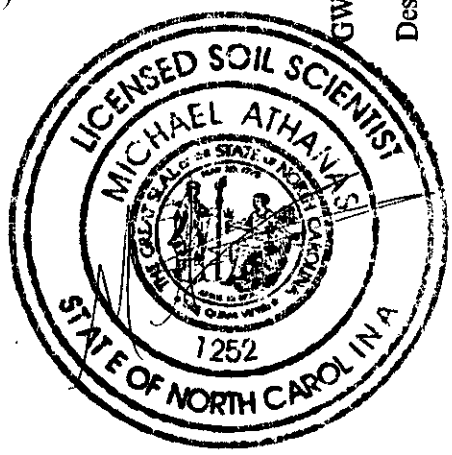
GWS File #: 56213 Approved ☐ Disapproved ☐

Design Review: TCT 10/6/08 ☒

Field Review: CMS 10/7/08 ☑

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

Reference: Data Sheet for Harbor Dr. (Parcel ID 05317402)
House Footprint: See attached plan
Building Setback: See zoning
Water Source: Well
Number of Bedrooms: 4/480gpd
Proposed LTAR: 0.3 gpd/ft2 (initial), 0.075 gpd/ft2 (repair)
Suggested Initial System Type: 25% Reduction
Suggested Repair System Type: LPP
Distribution: Pressure Manifold
Pressure Head: 2'
Tap Size & Material: 1/2" sch 80 (8 taps)
Flow Per Tap: 5.48 gpm
System Flow: 43.8 gpm
Dosing Volume: 242.5 gal
Pump Run Time: 5.5 min
Friction Head: 15.3'
Elevation Head: 35.5'
TDH: 52.8'
Septic/ Pump tank size: 1500/1000 gallons
Proposed Trench Bottom: 30" (Initial)
Trench Spacing: 9' on center

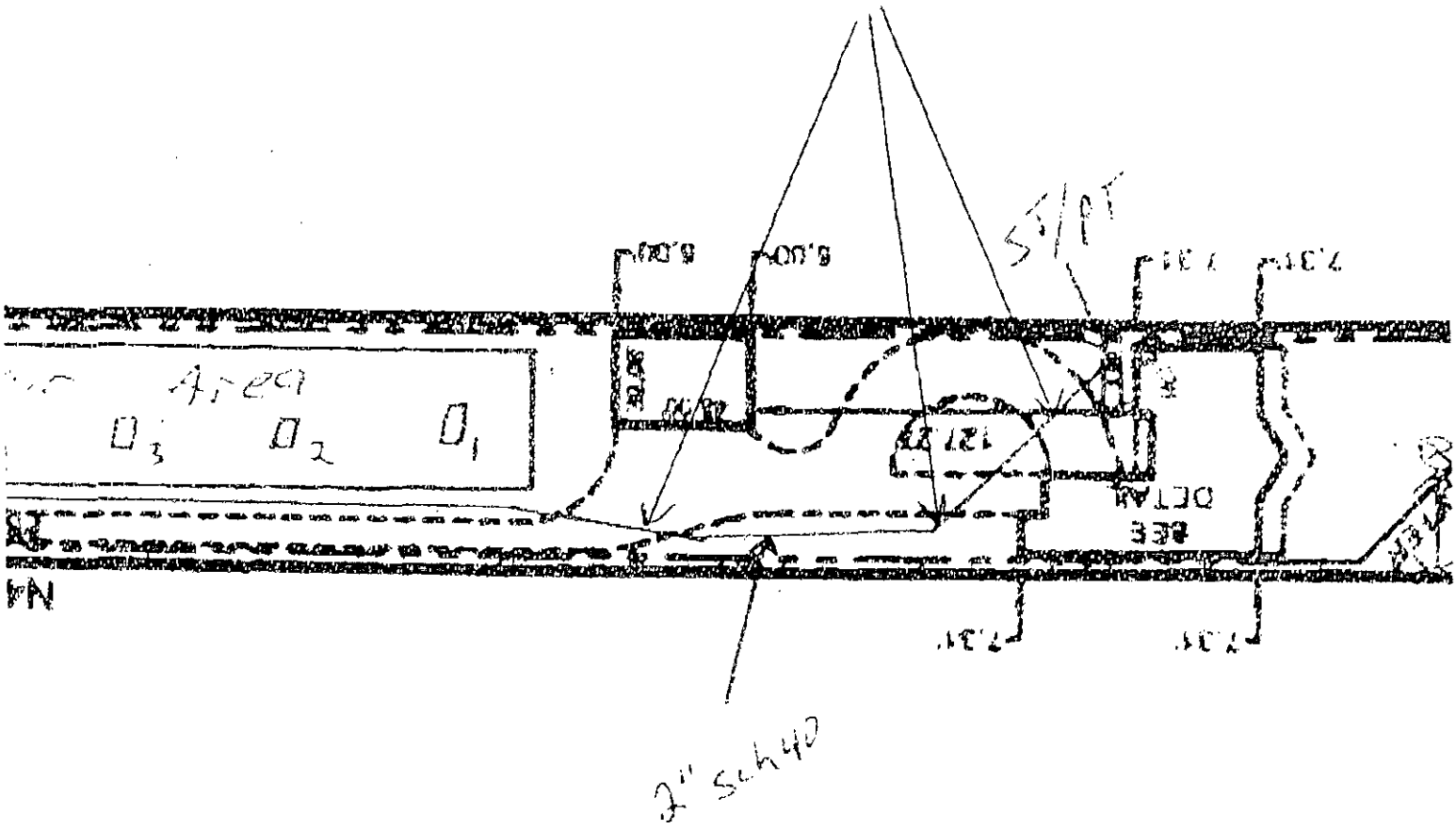


Line	Design Length	Actual Length	Elevation
White 1	50'	52'	3.6'
Yellow 2	50'	52'	4.5'
Orange 3	50'	54'	5.2'
Blue 4	50'	52'	6.1'
White 5	50'	51'	6.8'
Yellow 6	50'	54'	7.1'
Blue 7	50'	50'	8.3'
White 8	50'	52'	10.0'

Initial system: 400'
Benchmark: 1.4'
Pump Tank: 34.1'

Repair system: *6400 ft2 needed; 11,000 ft2 available*
House corner: 33.7'

The supply line must be either 30" below the driveway or sleeved in 4" sch 30 PVC. The PVC must extend 10' on either side of the driveway.



LOT 16A

N/F
STEPHEN A. WOODRUFF &
DAVID & KIMBERLY JONES
DB. 18142, PG. 159
PID: 053-174-01

40'11"E 1341.37'

LOT 15

S47°40'21"W 1810.78'

LOT 14B

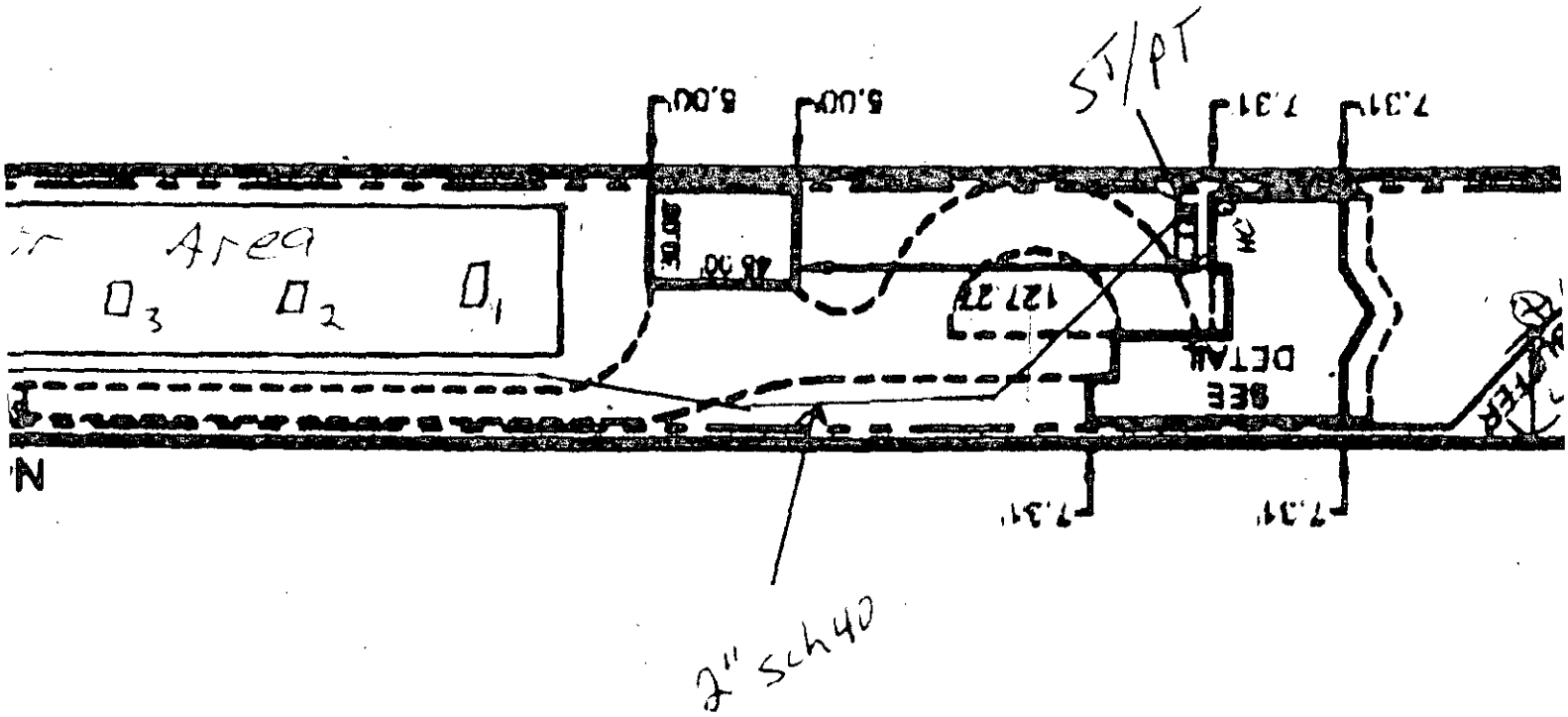
N/F

GWS Septic System Design Review

GWS File #: 5621B

	Approved	Disapproved
Design Review: TCT 10/6/08	☒	☐
Field Review: _____	☐	☐

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



DENR/DEH

ON-SITE WASTEWATER SECTION

Sheet ___ *of* ___
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Tim Whelan — APPLICATION DATE _____
ADDRESS: _____ — DATE EVALUATED: _____
PROPOSED FACILITY: 4 bedroom — PROPOSED DESIGN FLOW (.1949): 480 gpd — PROPERTY SIZE: _____
LOCATION OF SITE: Harbor Dr — PROPERTY RECORDED: _____
WATER SUPPLY: • Private • Public • Well • Spring • Other _____
EVALUATION METHOD: • Auger Boring • Pit • Cut — TYPE OF WASTEWATER: • Sewage • Industrial Process • Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 0-3%	0-13	RBr scl	wsbk Frss sp	Mn/River Rock	50"	—	—	PS 0.25
		13-37	DkBr cl	wsbk Frss sp					
		37-50	RBr sc/scl	wsbk Fr s x					
			Soil somewhat cemented						
2	LS 3%	0-10	RBr scl	wsbk Frss sp	common Mn/YB's @32"	50"	—	—	PS 0.25
		10-32	Br cl	wsbk Frss sp					
		32-50	RBr sc	WAbk Frss sp					
			River Rock						
3	LS 3%	0-7	Fill		common Mn/YB @36"	48"	—	—	PS 0.25
		7-11	RcR scl	wsbk Frss sp					
		11-48	RBr sc/scl	wsbk Frss sp					
4	3-5%	0-6	Br scl	wsbk Frss sp	common - many Mn YB @ 20" chr @ 41"	41"	—	—	PS 0.3 LS 0.2
		6-12	RBr cl	wsbk Fr ss sp					
		12-48	Br RC	WAbk Fr ss sp					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	1200ft²	LPP
System Type(s)	25% Red	6400ft²
Site LTAR	0.3	0.075

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: MA & Assoc
OTHER(S) PRESENT: _____

COMMENTS: _____

SOIL/SITE EVALUATION

(Continuation Sheet)

Sheet ___ of ___

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: _____
DATE OF EVALUATION: _____
COUNTY: _____

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
P.4	LS	0-11	R scl wsbk	Frsssp					PS
5	3-5%	11-48	RYc Abk	Fi ss p	Common YB's	48"	—	—	0.225
		other	side of P.4	Different					
P.4	LS	0-6	Br cl wsbk	Frsssp					PS
6	5%	6-27	RBr cl wsbk	Frsssp		48"	—	—	0.3-0.25
		27-48	BY cl/c wsbk-m	Fi s sp	Prolific m Common YBs				to 27"
AB	LS	0-16	R scl/cl wsbk	Frsssp					PS
7	3-5%	16-48	Rc sbk	Frsssp	—	48"	—	—	0.3
AB	LS	0-8	R scl wsbk	Frsssp					PS
8	3-5%	8-35	R cl wsbk	Frss sp	—	48"	—	—	0.3
		35-48	Rc sbk	Frsssp					
AB	LS	0-8	R Br scl wsbk	Frsssp					PS
9	5%	8-40	Rc sbk	Frsssp	—	48"	Fcwsap / F-c sap	—	0.3
		40-48	R cl wsbk	Frsssp					

COMMENTS: _____

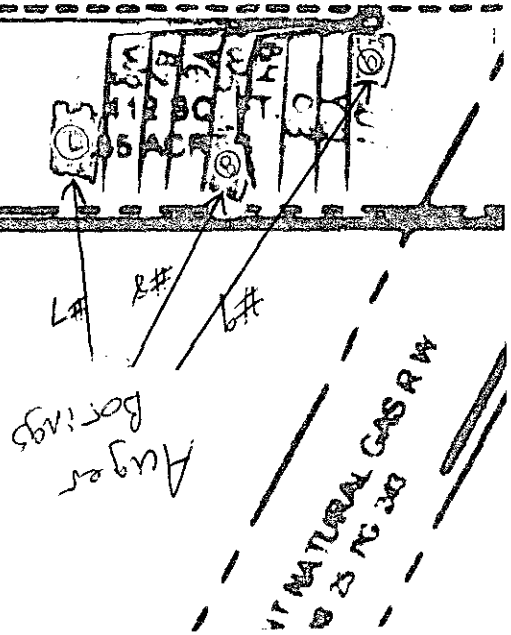
LOT 16A

N/F
STEPHEN A. WOODRUFF &
DAVID & KIMBERLY JONES
DB. 18142 PG. 199
PID: 053-174-01

N47°40'11"E 1341.37'

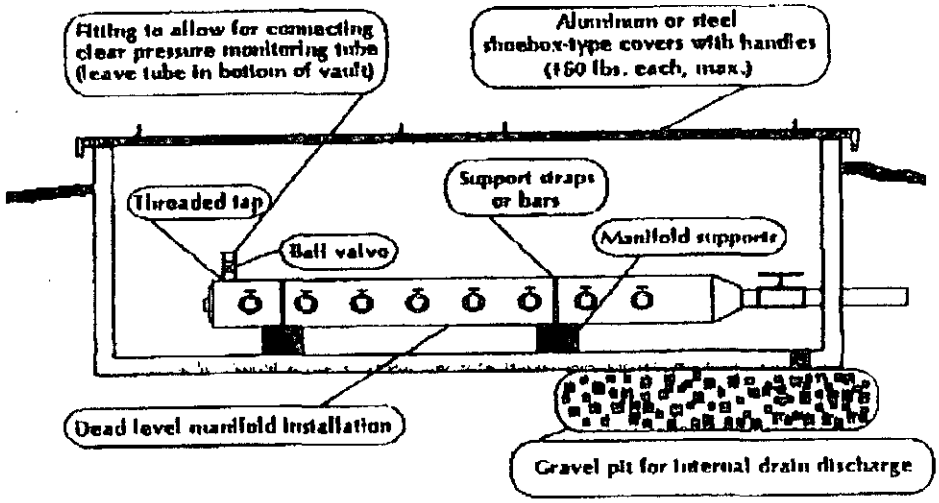
LOT 15

S47°40'21"W 1810.78'



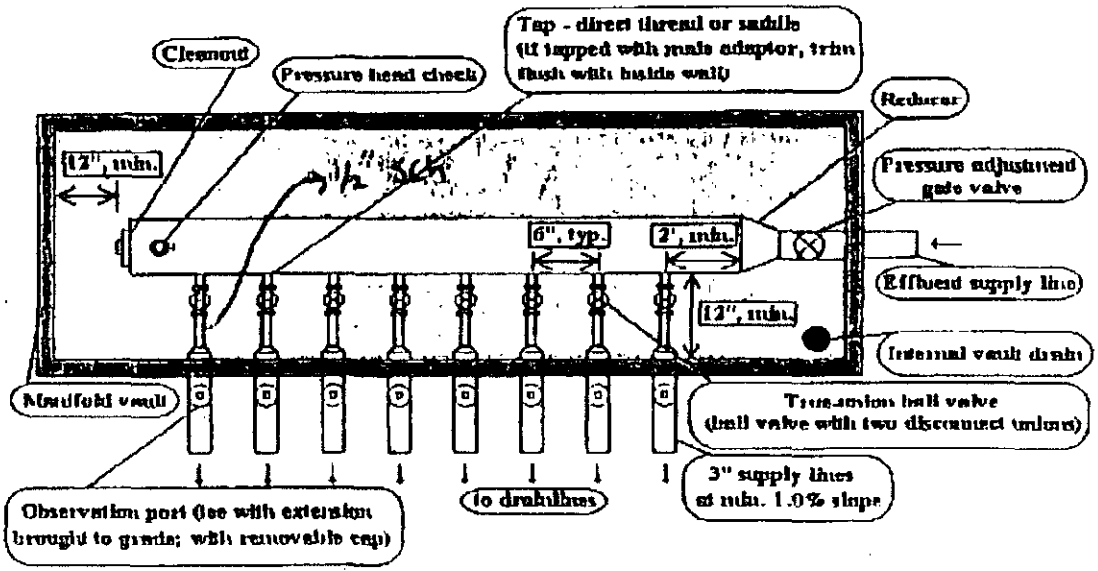
LOT 14B

N/F



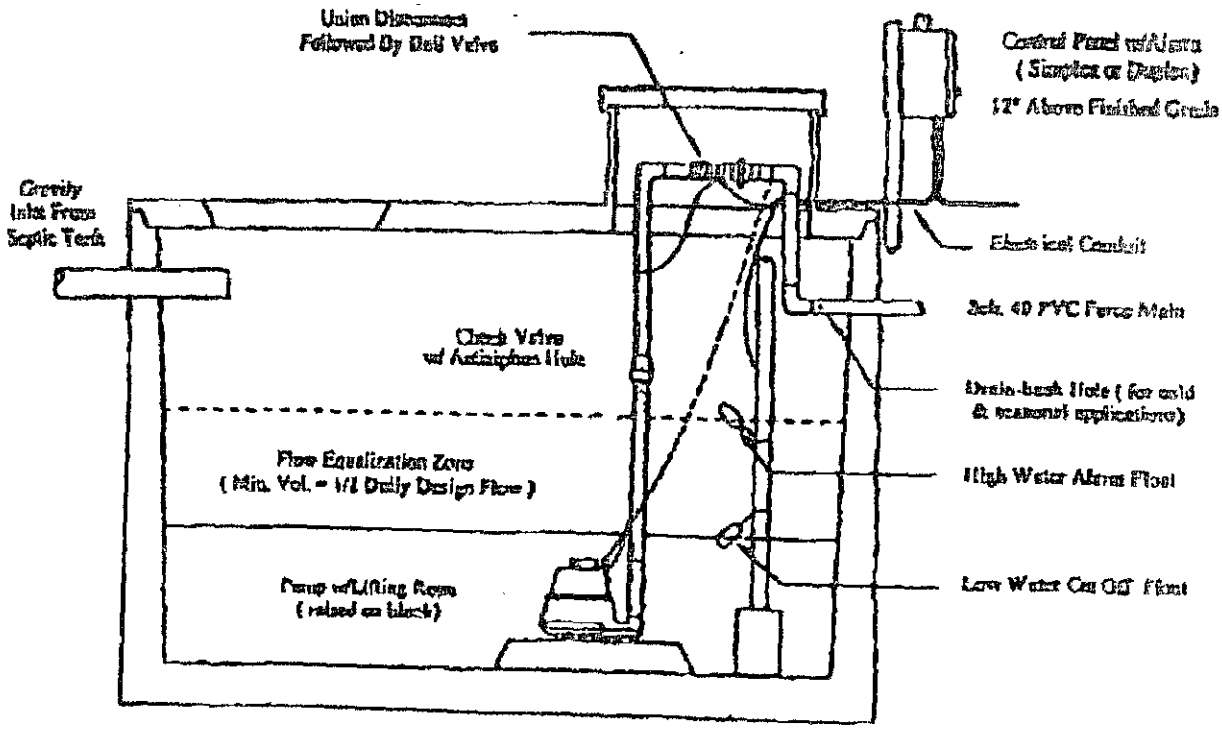
Profile View of Pressure Manifold for Sloping Site Installation

(not to scale)



TYPICAL PUMP TANK DETAIL

1. Pump tank shall have an access manhole extending at least 6 inches above finished grade.
2. Pump and control circuits shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, outside enclosure (NEMA 4X or equivalent) adjacent to the pump tank, securely mounted at least 12 inches above finished grade. The pump(s) shall be manually operable without requiring the use of special tools or entrance into the tank for testing purposes. Conductors shall be conveyed to the disconnect enclosure through waterproof, gasproof, and corrosion-resistant conduits, with no splices or junction boxes provided inside the tank. Wire grips, duct seal, or other suitable material shall be used to seal around wire and wire conduit openings inside the pump tank and disconnect enclosure.
3. The pump tank shall have a properly functioning high-water alarm. The alarm circuit shall be supplied ahead of any pump overload and short circuit protective devices. The alarm shall be audible and visible by system users and included in the pump and control enclosure (Simplex or Duplex Control Panel).
4. Float switch for the high water alarm shall be set no more than 3 inches above the high water level of pump cycle.
5. Pump floats should be set so that level of water at end of pump cycle is above the top of the pump.
6. Float switch tie downs to be made of corrosion resistant material, no tape or metal hose clamps.
7. Pump discharge shall have a check valve.
8. Anti-siphon hole (three-sixteenth inch) is required between the pump and the check valve.
9. Watertight testing will be required on two piece pump tanks.



INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DEHNR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- Rake trench walls, lime side-walls, install trenches 36" wide and have no more than 1/4" fall in 10 feet.

Day-to-Day Management

Don't use too much water.

- The drainfield does not have unlimited capacity.
- Typical daily water use is 50gallons per person.
- The soil drainfield usually has a maximum daily design capacity of120 gallons per bedroom, even for short periods of time.
- Overloads can occur seasonally, daily, or on the weekend.
- Water conservation will extend the life of your system.
- Repair dripping faucets and toilets.

Limit disposal to sewage.

- Don't use your septic tank as a trash can for cigarette butts, tissues, sanitary napkins, cotton swabs, cat box litter, coffee grounds, or disposable diapers.
- Restrict the use of your garbage disposal. These add quite a lot of extra solids.
- Don't pour grease or cooking oil down the drain.
- Don't poison your system with harmful chemicals such as solvents, oils, paints, thinners, discarded medications, disinfectants, pesticides, poisons, and other substances.
- Save money. Commercial septic tank additives are usually not necessary.

Protect the system from physical damage (site maintenance).

- Keep the soil over the drainfield covered with vegetation to prevent soil erosion.
- Don't drive vehicles over the system.
- Avoid construction over the system and repair area.
- Maintain the natural shape of the land immediately downslope of the system, and protect this area from excavation (cutting and filling).
- Don't cover the tank or drainfield with asphalt or concrete.

Dispose of all wastewater in an approved system.

- Don't put in a separate pipe to carry wash waters to a side ditch or the woods. This is illegal.

Periodic Maintenance and Repair

Home and yard (site maintenance):

- Protect and maintain the site of your septic tank and drainfield.
- Cut down and remove trees that like wet conditions. This includes willows, elms, sweetgums, and some maples.
- Landscape the yard to divert surface waters away from the tank and drainfield.
- Be sure that the water from the roof, gutters, and foundation drains does not flow over the system.
- If your system is at the base of a slope, then consider installing a french drain to divert underground waters.
- Maintain drainage ditches, subsurface tiles, and drainage outlets so that water can flow freely from them.

Septic tank:

- Install risers over the tank if it is buried 6 inches or deeper. They provide easy access for measuring and pumping solids as well as cleaning the effluent filter.
- Measure how quickly sludge and scum accumulate in the tank. Have your professional pumper record this information.
- Have solids pumped out of the tank as needed. Most septic tanks have two compartments; get both pumped.
- Cooperative Extension Service publication *AG-439-13, Septic Systems and Their Maintenance*, contains more information on pumping frequency.
- Don't wait until your drainfield fails to have your tank pumped. By then, the drainfield may be ruined. With septic systems, an ounce of prevention is worth a ton of cure!

Regulations and precautions:

- Hire a state-certified subsurface system operator for any system with a pump. One will be required by law for low pressure pipe (LPP) systems installed or repaired after July 1, 1992, any subsurface drip irrigation systems, aerobic treatment units (ATUs), peat biofolters, sand biofilters, textile biofilters, and other complex systems.
- A list of state-certified subsurface system operators can be obtained from the N.C. Water Pollution Control System Certification Commission at (919) 733-0026.
- Be sure the pump and electrical components continue working properly between scheduled maintenance visits.
- Sewage contains germs that can cause diseases. Never enter a septic tank. Toxic and explosive gases in the tank present a hazard. Old tanks may collapse. Electrical controls present a shock and sparkhazard. Secure the septic tank lid so that children cannot open it.
- Don't attempt to repair a failing system yourself. Get a repair permit and hire an experienced contractor.

For more information about septic systems, contact your county Extension agent or local health department.

Prepared by

***Michael T. Hoover**, Extension Soil Science Specialist, Department of Soil Science, North Carolina State University*

JUN-4-2007 02:49P FROM:

TO:17046332657 P.1

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 #: 5621B Permit #: 3867 Tax Parcel #: 053-174-02

Property Owner: David Ryerson

Job Location Address: 10235 Harbor Dr

City: Charlotte State: NC Zip Code: 28214

Installation Approval Issuance Date: 4-20-09

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 5/20/09, 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: 450 GPD

Site LTAR: .3 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Drainfield Design ☐ N/A

Trench Depth: 36 inches

Trench Width: 3' feet

Line Spacing: 9' feet (O.C.)

Total line length: 400 feet

# of Lines: 8 @ 50 feet

Depth of Media: 12' inches (Type) _____

Distribution Device: _____

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 _____

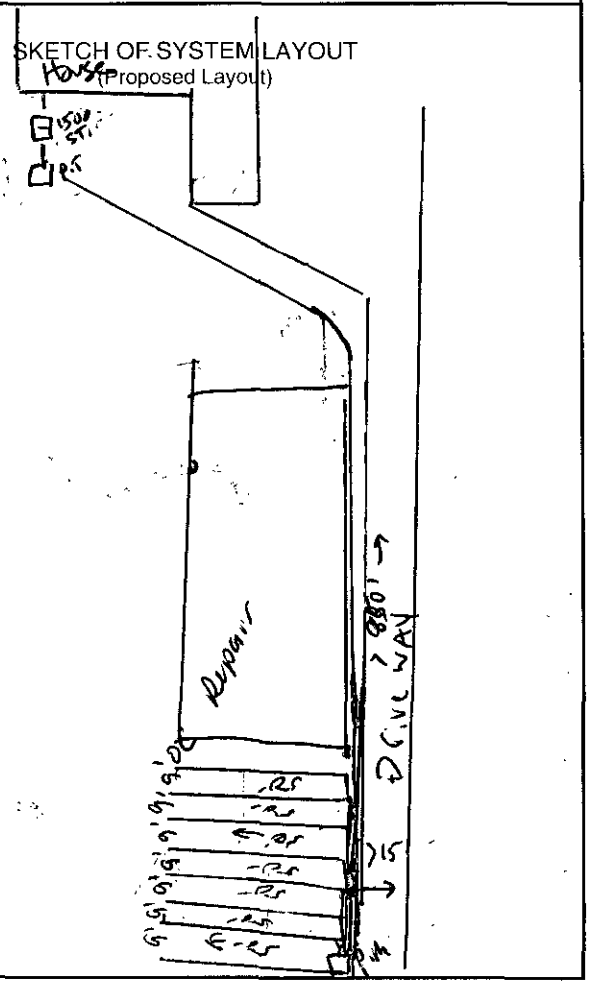
Minimum System Setbacks

Distance from Building Foundation: 75' feet

Distance from Property Line: 710' feet

Distance from Water Supply Source: 50' feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)



Comments: System Classification & Type: IIIb system chambers FBM
well located in front of lakeside

DENR Authorized Agent: Jason Jackson Signature: Jason D Jackson

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 #: 5621B Permit #: 3867 Tax Parcel #: 053-174-02

Property Owner: David Ryerson

Job Location Address: 10235 Harbor Dr.

City: Charlotte State: NC Zip Code: 28214

Operation Permit Issuance Date: 4/30/09 Contractor Name: Larry Beam

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons
4/26/05 DP-1500 STB #44 #57

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: DWE 1512 HV 15.7Amp 230V
1/22/09 1500 #38 Dellmgr 1000 PT-27

Drainfield Installation ☐ N/A

Trench Depth: 32 inches

Trench Width: 3' feet

Line Spacing: 9 feet (O.C.)

Total line length: 400 feet

# of Lines: 8 @ 50 feet

Depth of Media: 12 inches (Type) Ez-flow

Depth of Cover: > 6" inches

Distribution Device: Pressure Manifold

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

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: 5' feet

Distance from Property Line: 10' feet

Distance from Water Supply Source: 50' feet

Inspection Dates

Tank(s) Inspected: 4/30/09

Excavation Inspected: _____

Pump & Controls Inspected: 4/30/09

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

* Installed per Installation Approval

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: Type IIIb system - Ez flow. Ez 1003T

DENR Authorized Agent: Jason Jackson Signature: Jason Jackson

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 #: 56213 Permit #: 3867 Tax Parcel #: 053-174-02

Property Owner: David Ryerson

Job Location Address: 10235 Harbor Dr.

City: Charlotte State: NC Zip Code: 28214

OPERATION PERMIT CONDITIONS:

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

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

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

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

System Classification: IIIb

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

Subsurface system operator required: Yes ☐ No ☒

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

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

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

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

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

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

V. Other:

Type IIIb system pump to pressure manifold to ez flow drainfield. EZ 1035

DENR Authorized Agent: Jason Jackson Date: 4/30/19

Signature: Jason R Jackson

FEE: 200.00 CK# 6207

DATE: 6/10/04 gc

APPLICATION FOR IMPROVEMENT PERMIT FOR RESIDENTIAL SITE INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM

[ ] CRT

TYPE APPLICATION: [X] NEW SYSTEM [ ] EXPANSION/ ALTERATION OF EXISTING SYSTEM [ ] REPAIR OF EXISTING SYSTEM

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

FILE #: 56216

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 05317402

STREET ADDRESS: Moores Chapel Rd.

SUBDIVISION OR MOBILE HOME PARK NAME: N/A

LOT NUMBER:

TOWNSHIP (CHECK ONE):

- [X] 0 MECKLENBURG
- [ ] 1 CHARLOTTE
- [ ] 2 DAVIDSON
- [ ] 3 CORNELIUS
- [ ] 4 PINEVILLE
- [ ] 5 MATTHEWS
- [ ] 6 HUNTERSVILLE
- [ ] 7 MINT HILL

CLOSING DATE _____

TYPE OF BUILDING (CHECK ONE):

- [ ] SINGLE MOBILE HOME(S)
- [ ] DOUBLE WIDE (D)
- [X] HOUSE (H)
- [ ] MODULAR HOME (M)
- [ ] MULTIPLE FAMILY (U)
- [ ] OTHER (O)

HEATED SQUARE FOOTAGE: 4,000

NUMBER OF BEDROOMS: 5 | NUMBER OF OCCUPANTS: 5

FOUNDATION FOR RESIDENCE:

- [ ] WITHOUT BASEMENT
- [ ] ON SLAB
- [ ] CRAWL SPACE
- [X] WITH BASEMENT /PLUMBING
- [ ] WITH BASEMENT /NO PLUMBING

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: [ ] YES [X] NO TYPE: _____

WATER SUPPLY (CHECK ONE):

- [ ] COMMUNITY (C)
- [ ] SHARED WELL (S)
- [X] MUNICIPAL (M)
- [ ] OTHER 'SPRINGS' (O)
- [ ] PRIVATE WELL (P)

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES	[ ] YES [X] NO	WELL, SPRINGS OR WATERLINES	[ ] YES [X] NO
EXISTING WASTEWATER SYSTEMS	[ ] YES [X] NO	DESIGNATED WETLANDS	[ ] YES [X] NO
EASTMENTS OR RIGHT-OF-WAYS	[ ] YES [X] NO		

PROPERTY OWNER:	LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:
NAME: Berry Tommy W. SR. (LAST) (FIRST) (MI)	NAME: (LAST) (FIRST) (MI)
ADDRESS: 112 Boyce Court	DAYTIME PHONE: ( ) -
CITY: Clemmons STATE: NC ZIP: 27012	
DAYTIME PHONE: 704 343-8667 EXT. 103	

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 12/21/92

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 agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED: [signature] DATE: 6/8/04

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

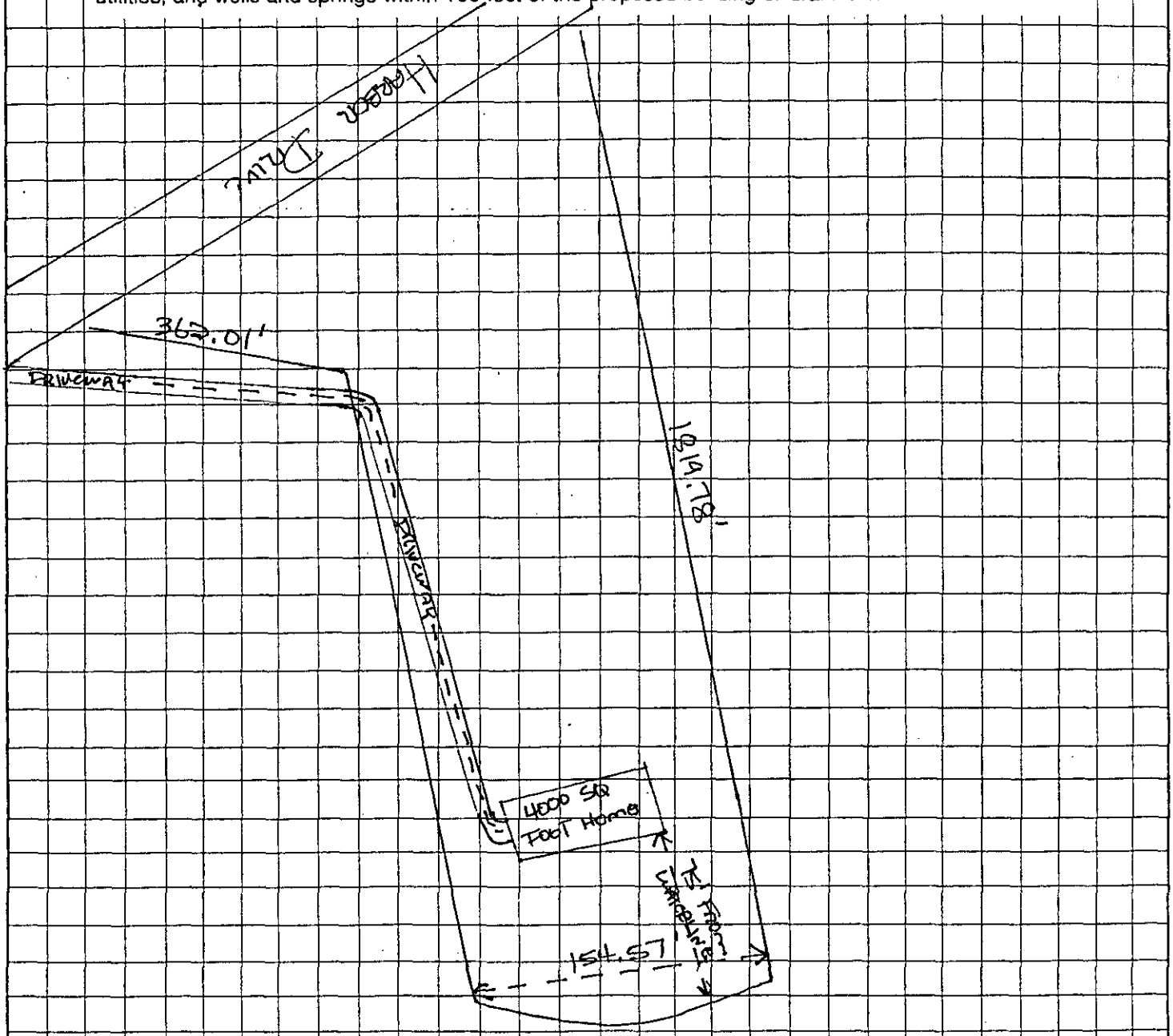
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON STREET
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 5621B

TC: 053-174-02

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



OWNER/AGENT SIGNATURE Tom Bu

DATE 6/8/04

APPROVAL DATE _____

White - Health Department's Copy. Canary - E.H.S. Copy Pink - Owner's Copy

Dep
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 2
Property ID: 053-174-02
Lot #:
File #: 053-174-02
Code: 2

ACS
56218

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Tommy W. Berry, Sr.
Applicant:
Address: 112 Boyer Court, Cramerton, N. C. 28032
Date Evaluated: 7/2/2004
Proposed Facility: Residence
Design Flow (.1949): 600gpd
Property Size: .5a. Inv.
Location of Site: Harbor Drive
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY 1941		OTHER PROFILE FACTORS				
			1941 Structure/ Texture	1941 Consistence Mineralogy	1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr Horiz	Profile Class & LTAR
1	LS, 8	0-4	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48	N/A	NONE	PS, IV .3GPD/FT^2
		4-40	SBK/C	FI/SEXP/S/P					
		40-48	SBK/CL	FR/SEXP/SS/SP					
2	"	0-4	GR/CL	"	>47" TO SOIL WETNESS	47	"	"	PS, IV .25GPD/FT^2
		4-47	SBK/C	FI/SEXP/S/P					
3	"	0-5	GR/CL	"	>49" TO SOIL WETNESS	49	"	"	"
		5-49	SBK/C	FI/SEXP/S/P					
4	"	0-4	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48	"	"	"
		4-48	SBK/C	FI/SEXP/S/P					
5	LS, 10	0-4	GR/CL	FR/SEXP/SS/SP	>39" TO SOIL WETNESS	39	"	"	"
		4-39	SBK/C	FI/SEXP/S/P					
6	"	0-4	GR/CL	FR/SEXP/SS/SP	>40" TO SOIL WETNESS	40	"	"	"
		4-40	SBK/C	FI/SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)		
Site LTAR	.25GPD/FT^2	.25GPD/FT^2

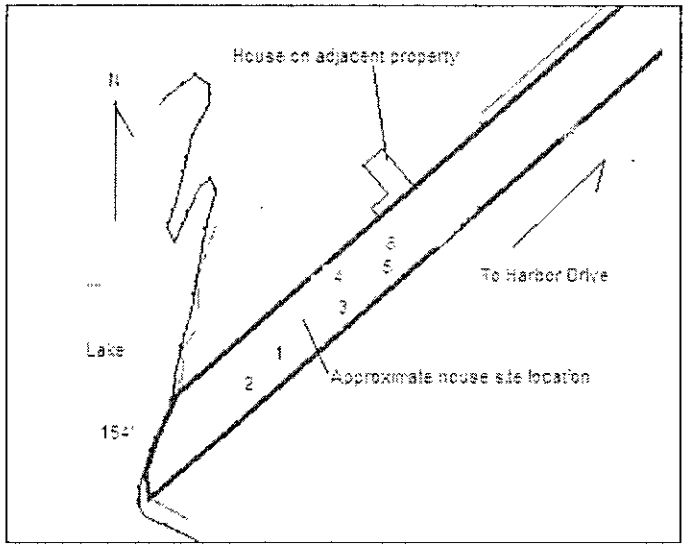
Other Factors (.1946):
Site Classification (.1948): PROVISIONALLY SUITABLE
Evaluated By: W. R. Marlin, LSS, 7/6/2004, W. R. Marlin
Others Present:

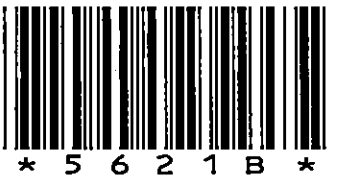
COMMENTS:
100% repair, additional space available

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





10235 HARBOR DR

1/8/2008

duponbj

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

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 5621B WASPS App #: 3867

Primary ES assigned to project: CS

Secondary ES assigned to project: _____

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

I. File Review:

Rule or Law				
	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☑	No ☐	N/A ☐
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☑
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 15			
	Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR .3	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☑	No ☐	N/A ☐
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

LD Hours 10/29/08 S C Garces Passed 5/14/08

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Property line lengths shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐
	Operation Permit			
.1937(i)	System type as described in table V(a) of rule .1961	Yes ☑	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☑	No ☐	N/A ☐

II. WASPS Review:

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

Items requiring correction/modification: _____

Comments: IP - 5621B

- NEED DETAIL OF PIPING UNDER DRIVE
- SLEEVING DETAIL RECEIVED ON 10/9/08 (TCT)

IA issued date: A-2004

OP issued date: A 30905

Review performed by: TCT For KR Date performed: 10/9/08

EXHIBIT MAP

BLAKE COVE SUBDIVISION
MAP BOOK 25, PAGE 243
LOT 15

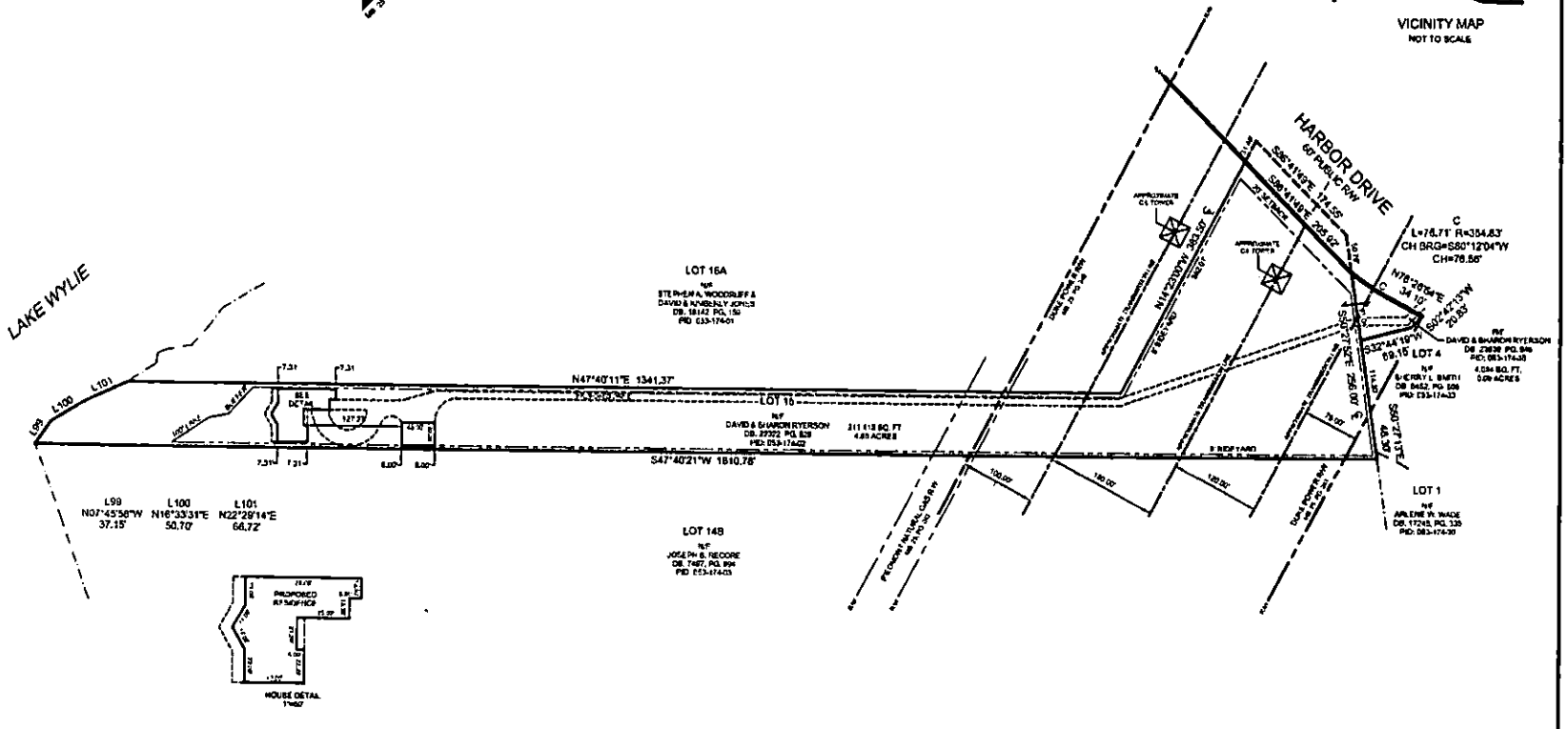
LEGEND

These standard symbols will be found in the drawing.

- FOUND OR SET REBAR
- LANDMARK TIE (AS NOTED)
- EDGE OF PAVEMENT
- LINES NOT SURVEYED







GRAPHIC SCALE

1 inch = 100 ft.

EXHIBIT MAP

HARBOR DRIVE
MAP BOOK 25, PAGE 243, LOT 15
CITY OF CHARLOTTE MECKLENBURG COUNTY
NORTH CAROLINA

PREPARED FOR
T. WHELAN HOMES

SUMMIT LAND SURVEYING COMPANY
18715 WEST CATAWBA AVENUE
SUITE 400
CORNELIUS, NORTH CAROLINA 28031
(704) 895-0955

DRAWN BY: JBT	REV.
DATE: JULY 29, 2008	JOB NO. 08-0465R
SCALE: 1" = 100'	DWG. NO. B - 400
	SHEET NO.

LOT 14B
N/F
JOSEPH S. RECORE
DB. 7497, PG. 994
S47°40'21"W 1810.78'
Complex Topography
LOT 15
DUKE POWER R/W
MB 23, PG 243
DUMONT NATURAL GAS R/W
MB 23, PG 243
100.00'
150.00'
120.00'
6' SIDEYARD
APPROXIMATE TRANSMISSION LINE
APPROXIMATE TRANSMISSION LINE
APPROXIMATE TRANSMISSION LINE
5' SIDEYARD
N14°23'00"W 383.50'
362.01'
APPROXIMATE C.L. TOWER
APPROXIMATE C.L. TOWER
SET BACK

LOT 16A

N/F
STEPHEN A. WOODRUFF &
DAVID & KIMBERLY JONES
DB. 18142, PG. 159
PID: 053-174-01

'40'11"E 1341.37'

LOT 15

S47°40'21"W 1810.78'

VT NATURAL GAS R/W

LOT 14B

N/F

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	10/10/08	**Amount:**	200.00
Receipt #:	59266	**Tendered:**	0.00
Check / Auth #:	MC 014429	**Returned:**	-200.00
Received By:	GLADNAG		

Account Information

Account #:	200000
Contractor:	WELAN TIM
Attn:	
Address:	
Address:	
City/State/Zip:	CHARLOTTE, NC

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr HARBOR DR		1	200.00	200.00

Outstanding Balances

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	10/10/08	**Amount:**	200.00
Receipt #:	59267	**Tendered:**	0.00
Check / Auth #:	MC 014429	**Returned:**	0.00
Received By:	GLADNAG		

Account Information

Account #: 200000
Contractor: WELAN TIM
Attn:
Address:
Address:
City/State/Zip: CHARLOTTE, NC

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval HARBOR DR		1	200.00	200.00

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

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	09/11/08	**Amount:**	250.00
Receipt #:	58938	**Tendered:**	250.00
Check / Auth #:	CHECK 1339	**Returned:**	0.00
Received By:	GLADNAG		

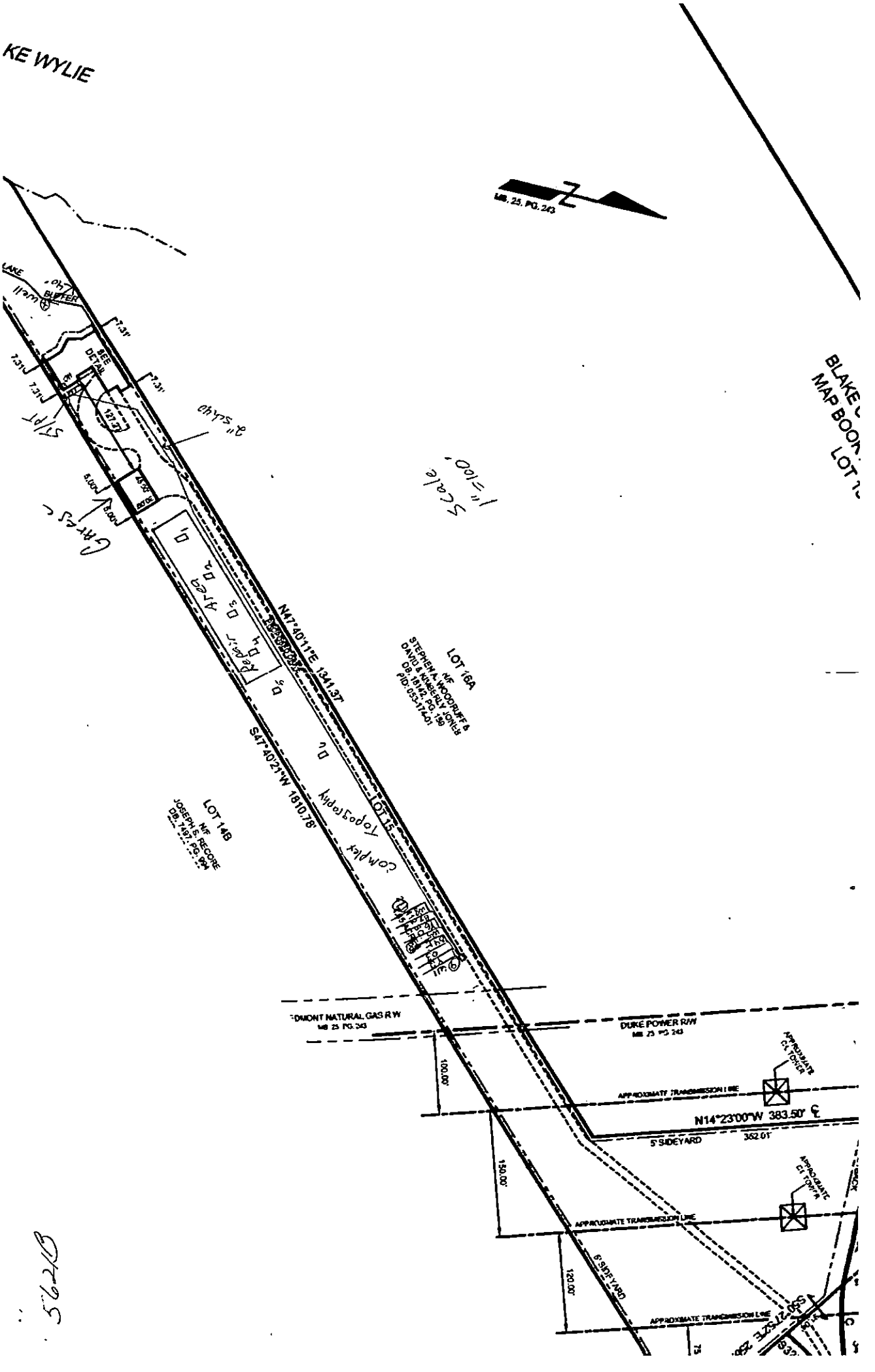
Account Information

Account #: 200000
Contractor: MICHAEL ATHANAS & ASSOCIATES
Attn:
Address: 1999 CANDLEWICK DR
Address:
City/State/Zip: FORT MILL, SC 29715

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen HARBOR DR		1	250.00	250.00

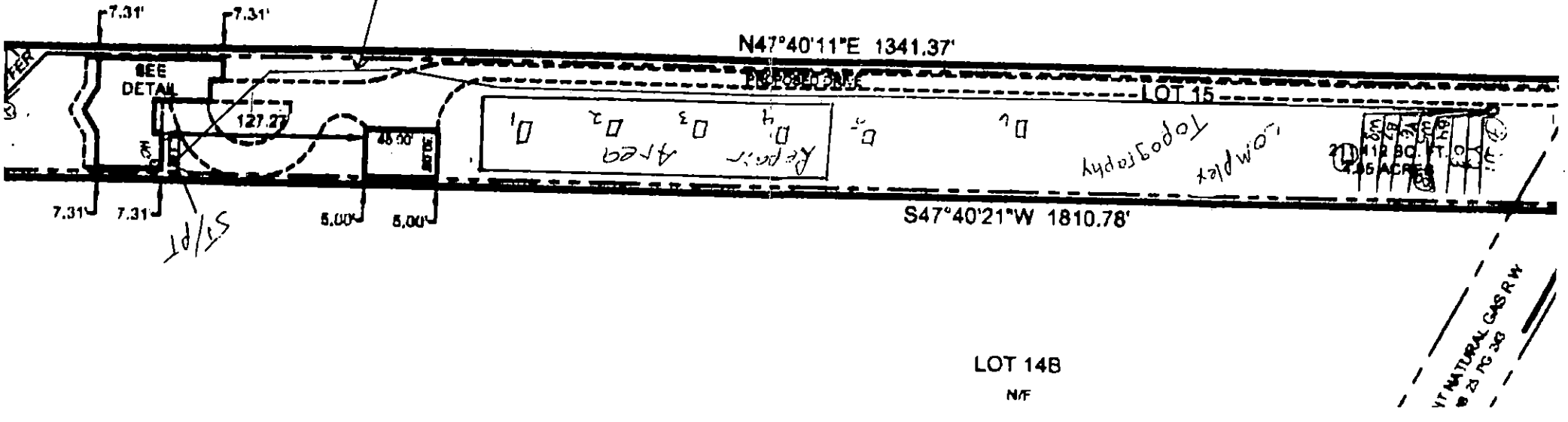
----------Outstanding Balances----------

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


KE WYLIE
MB. 25, PG. 243
LAKE
WATER
SEE DETAIL
127.27'
5.00'
25.00'
N47°40'11"E 1341.37'
S47°40'21"W 1810.78'
LOT 15
LOT 16A
NF STEPHEN A. WOODRUFF & DAVID & KIMBERLY JONES
DB. 18142, PG. 150
PID 033-17A01
LOT 14B
NF JOSEPH S. RECORE
DB. 7497, PG. 994
DUKE POWER R/W
MB 25 PG 243
APPROXIMATE TRANSMISSION LINE
APPROXIMATE CL TOWER
N14°23'00"W 383.50'
5' SIDEYARD
362.01'
100.00'
150.00'
120.00'
APPROXIMATE TRANSMISSION LINE
5' SIDE YARD
APPROXIMATE TRANSMISSION LINE
Scale
1"=100'
Topography
Complex
Pepper
Area
Drives
Stpt
Walk
Path
BLAKE
MAP BOOK
LOT

LOT 16A

N/F
STEPHEN A. WOODRUFF &
DAVID & KIMBERLY JONES
DB. 18142, PG. 159
PID: 053-174-01



LOT 14B

N/F

GWS Septic System Design Review

GWS File #: 5621B Approved Disapproved

Design Review: TCT 10/6/08 ☒ ☐

Field Review: CMS 10/7/08 ☒ ☐

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