

18317 MCKEE RD

21714501

1/8/2008

duponbj

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

Permit Number: 52588B

Tax Number: 217-14-501

The 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.

Basement	X Yes	___ No	___ Partial Basement	
Type Primary Wastewater System Type (circle one): I (II) III IV V VI	✓ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1	
0.3 Long-term acceptance rate	480 Max gallons/day wastewater flow	1600 Absorption Area (sq ft)	9' Trench spacing (min. on centers)	
4BS Serviced by private well	1500 Gallon septic tank	1331' Total trench length (ft)	36" Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)	
4 Bedrooms in residence	IV/A Gallon pump tank	12" Depth of stone		

Any surface waters present: NO Type: Minimum separation distance:

Site modifications required: NO

Additional Conditions: Install according to plans submitted by Toney Jacobs dated July 18, 2003.

Repair Area System Type Type (circle one): I (II) III IV V VI	✓ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1	
1600 Absorption Area (Sq ft) 1331' Total Trench Length (Ft)	12" Depth of Stone Trench	9' Trench spacing (min. on centers)	36" Maximum Trench Depth	

For existing system, enter the year originally installed:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for I Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules For Sewage, Treatment and Disposal in effe 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 by this Departme
- This Improvement permit is transferable.

DEHNR Authorized Agent — Date 7/22/03

Owner/Agent Signature — Date 7/22/03

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

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

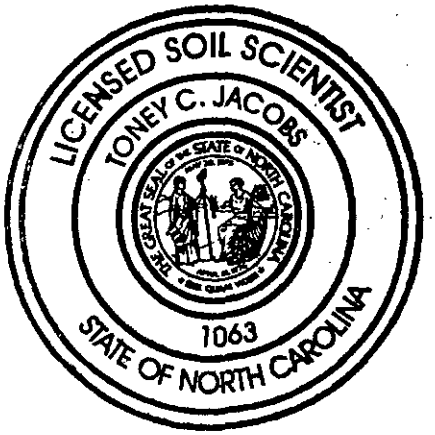
RESIDENTIAL GRAVITY CONVENTIONAL SEPTIC SYSTEM
FOR
SUBSURFACE WASTEWATER DISPOSAL
18317 MCKEE ROAD
CHARLOTTE, NORTH CAROLINA

MCHD FILE # 5288B

Prepared for:
Crescent Resources, Inc.
P. O. Box 1003
Charlotte, North Carolina 28201-1003

Prepared by:
Toney C. Jacobs & Associates, Inc.
168 Broadbill Drive
Mooresville, North Carolina 28117
office (704) 663-6905
fax (704) 662-9845
e-mail jacobs@i-america.net

July 18, 2003



Copy: Mr. Brandon Summey, R.S.
Mecklenburg County Health Dept.-IWWS
700 N. Tryon Street
Charlotte, N.C. 28202

Toney C. Jacobs, LSS

BACKGROUND

This is a recently divided 6.0 acre tract. The approximately 2 acres along the road frontage are gently sloping and all suitable for development.

APPLICATION INFORMATION

1. Prepared for

Owner: Ms. Linda Myers
Crescent Resources, Inc.
P.O. Box 1003
Charlotte, N. C. 28201-1003

Soil Scientists and Designers: Toney C. Jacobs, LSS
Toney C. Jacobs & Associates, Inc.
168 Broadbill Drive
Mooresville, NC 28117
(704) 663-6905 (Office)
(704) 662-9845 (fax)
e-mail jacobs@i-america.net

2. Water supply will be provided by an on-site private well.
3. Facility to be served by the proposed system is a 4-bedroom single family residence.

LOCATION

The property is located on the left of McKee Road at the SC/NC state line.

REFERENCES

Law and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources-DEH, April 17, 2002.

PLANS AND SPECIFICATIONS FOR SPECIFIC SYSTEM COMPONENTS

Septic Tank

1. The septic tank receives wastewater directly from the house.
2. A septic tank shall be watertight, structurally sound, and not subject to excessive corrosion or decay.
3. The septic tank must be of two-compartment design for maximum solids retention. The inlet compartment of two-compartment tank shall hold between two-thirds and

three-fourths of the total tank capacity.

4. Effluent from the two-compartment septic tank flows by gravity through a State approved effluent filter and a four-inch solid PVC pipe to flow divide, distribution box.
5. The septic tank must be provided with above ground approved manhole risers to provide easy access for clean-out.
6. When prefabricated concrete tanks or tanks of other material are used, they shall be constructed in accordance with the plans which have been approved by the State and shall comply with all requirements of Section .1953 of 15A NCAC 18A.
7. On the outlet tee of the septic tank an effluent filter must be installed. This filter should be equivalent to a Zabel Model A1800 or other State approved unit supplied by the tank manufacturer.

CONSTRUCTION INSTALLATION

Site Preparation

1. One of the most important concerns for an on-site system is to protect the site from soil disturbance by heavy equipment.
2. Now that the absorption area has been designed and flagged, it should be roped or fenced and protected from construction traffic. No site preparation or construction work should occur if the soil is wet.
3. Site and soil disturbance should be minimized when removing trees and brush from system area. **Do Not Grade!**

Tank Installation

The two-compartment septic tank is installed.

Supply Manifold

Flow divider – Dbox
Use a speed leveler box with equal distribution to all 4 laterals.

Conventional lines

1. Install laterals per section .1900.
2. Trenches shall be 36" wide, and 9' minimum on center. Trenches shall be "level" from end to end.

FINAL LANDSCAPING

1. After the system is installed, the following should be checked to ensure that the system will not be overloaded with excess rainwater and runoff:
   - The distribution field is shaped to shed rainwater and is free of low areas.
   - Grassy swales or ditches for diverting surface water are properly installed.

- Gutter and downspout drains are directed away from the system to rear of house.

2. Finally, the entire area should be planted with grass in order to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized before planting. After applying an appropriate grass seed, the area should be heavily mulched with straw or other suitable material.

QUALITY ASSURANCE REQUIREMENTS

The system must be installed by a qualified, contractor that is on the Mecklenburg County list of competent contractors. Critical stages of the installation, which should be checked, are:

1. System layout
2. Septic tank installation prior to backfilling.
3. Dbox installation
4. Final landscaping, operation and pressure head check.

The system design is based on a maximum waste flow of 480 gallons per day. Homeowners should pay particular attention to the section titled Homeowner Suggestions for ways to minimize the burden on the system.

OPERATION AND MAINTENANCE PROCEDURE

The system is classified as **Type II and DOES NOT require a maintenance contract** with a certified operator.

- The property owner should inspect to insure all surface water is diverted away from the fields and tank. Any ponding of surface water should be corrected.
- Grasses shall be mowed and maintained and any erosion shall be corrected promptly.
- The nitrification field area should be checked for leakages or malfunction, indications of damp or mushy areas compared to surrounding area or evidence of noticeable odor of sewage. Repairs shall be made immediately.

HOMEOWNER SUGGESTION

Most systems do not require much effort to operate and maintain. Even though the effort is small, the system must be maintained properly so that it operates reliably and at a minimum cost. Following are suggestions for the homeowner to minimize the burden on the septic system.

1. Garbage disposals should not be used in on-site systems. The ground garbage adds large amounts of solids to a septic tank, causing sludge to build up at a quicker rate than without. If disposal is installed, use should be limited.

2. Grease, cooking oils and coffee grounds should never be put into a septic tank.
3. Items such as disposable diapers, cigarettes, facial tissues and other solid or paper wastes should not be flushed into the on-site system.
4. Used motor oil and other such oily liquids should not be put into a septic tank.
5. Using less water can reduce the amount of water flowing to the treatment and disposal field.
6. Water-saving fixtures and devices can be installed on sinks, toilets and showers to reduce the rate at which the water flows from the fixture.
7. Dishwashers and washing machines should only be run with full loads.
8. Leaky faucets and toilets can add large volumes of water to the daily flow of water into the on-site system. Repair the leaks to save water and give the treatment and disposal field a rest.
9. Roof drains, basement sump pumps, foundation drains, and other such drains should not empty into or onto the surface above the on-site system. These drains should be directed to another part of the lot away from the treatment and disposal field.

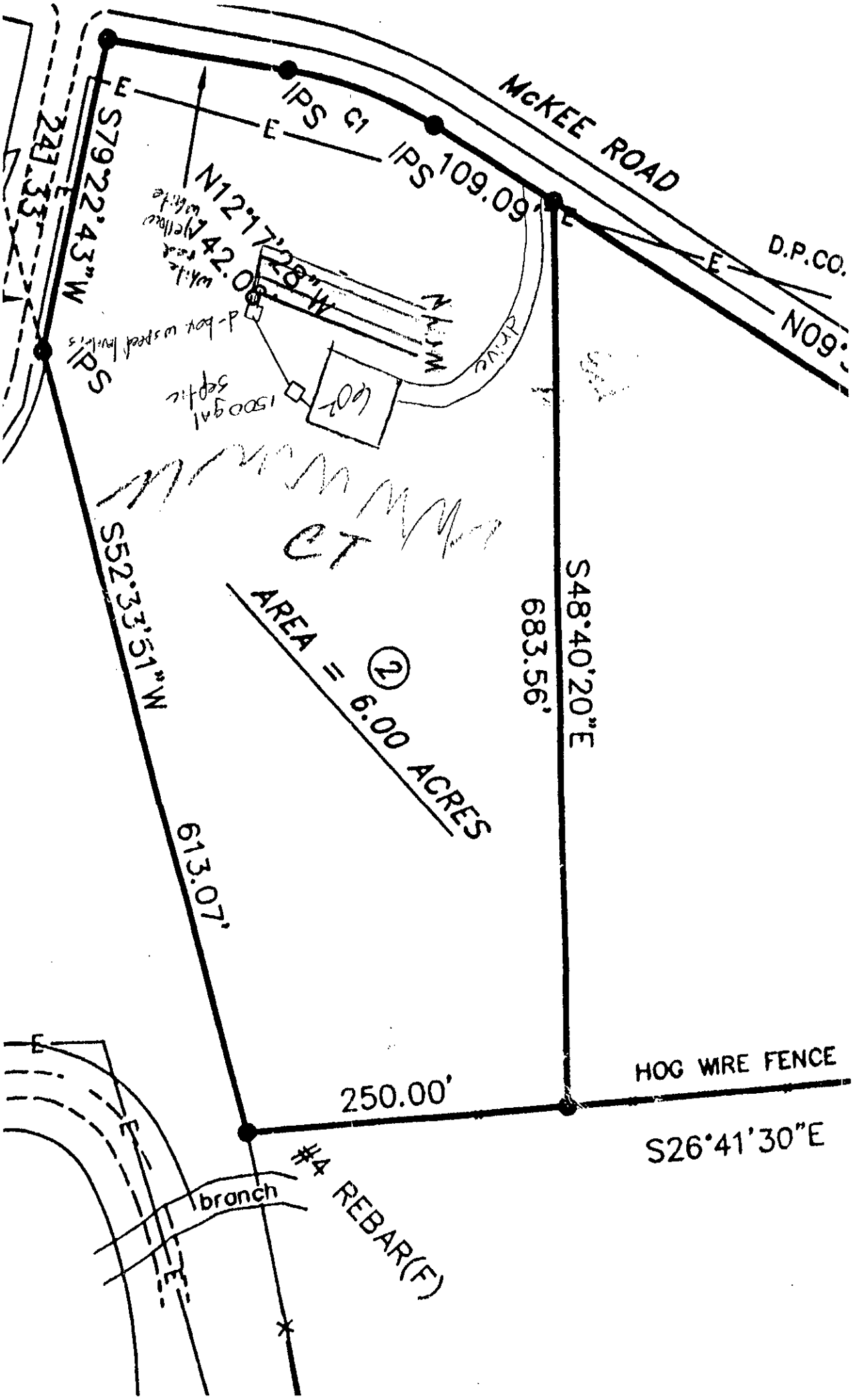
DESIGN SPECIFICATIONS

18317 McKee Road

Daily design flow:	480 gpd.
Septic tank size:	1500 gal. (2 compartments)
Effluent loading rate:	0.3 gpd/ft^2
Total length and diameter of supply pipe:	minimal
Number and length of laterals:	4@ 133', end-fed gravity
Repair:	same

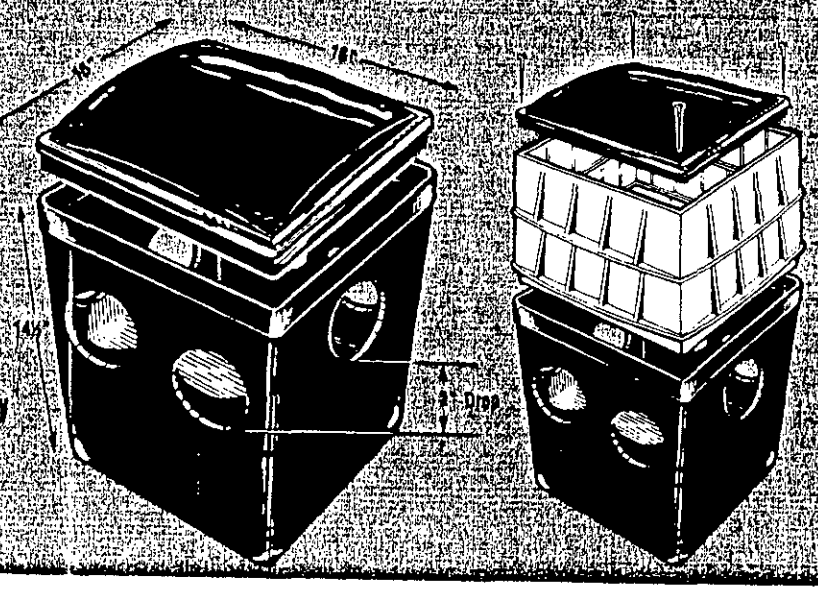
LIST OF ATTACHMENTS

1. Site plan and system schematic
2. Distribution detail


McKEE ROAD
IPS
IPS
109.09'
D.P.CO.
E
E
S79°22'43"W
247.33'
N12°17'28"W
42.06'
IPS
S52°33'51"W
613.07'
AREA = 6.00 ACRES
②
S48°40'20"E
683.56'
250.00'
HOG WIRE FENCE
S26°41'30"E
#4 REBAR(F)
branch
E
E
E

TUF-TITE® 7-Hole Distribution Box 7HD2

- **Injection molded of non-corrosive HDPE.**
- **Domed Lid is ribbed for exceptional strength.**
- **Patented snap-in pipe seals simplify installation**



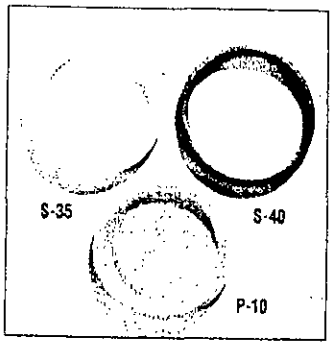
Domed Lid. Can be anchored to box or Riser with 4 stainless screws.

Optional Risers. They stack in 6" increments to extend Box to grade.

Fittings Included. The 7HD2 comes complete with a Domed Lid and 9 snap-in fittings of your choice.

INSTALLATION IS JUST THIS SIMPLE

1. Position the distribution Box on level virgin soil. **Do not place box on a concrete slab.**
2. Install the inlet pipe and outlet pipes. Be sure the bottoms of all pipes rest on virgin soil.
3. Level the Distribution Box and all pipes as needed.
4. Backfill the pipes to within two feet of the Distribution Box. Recheck the level of the box, then backfill up to the top lid ridge.
5. Install and adjust Tuf-Tite Speed Levelers.
6. Place lid on the Distribution Box and finish backfilling.



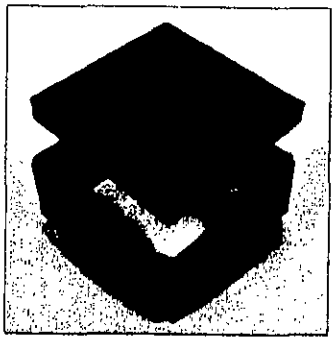
Choice of Fittings
S-35 Pipe Seal, for:
- Sewer and Drain
- SDR 35 ■ ASTM 3034
- Thin Wall ■ 1500 Lb. Crush

S-40 Pipe Seal, for:
- Schedule 40
- 4" Corrugated

P-10 Plug, for unused holes



Tuf-Tite Speed Levelers™
Control the flow of effluent from the Distribution Box. Simply insert a Speed Leveler into each outlet pipe. Rotate each Leveler so the flow is distributed as desired. Available for 3" or 4" PVC pipes.

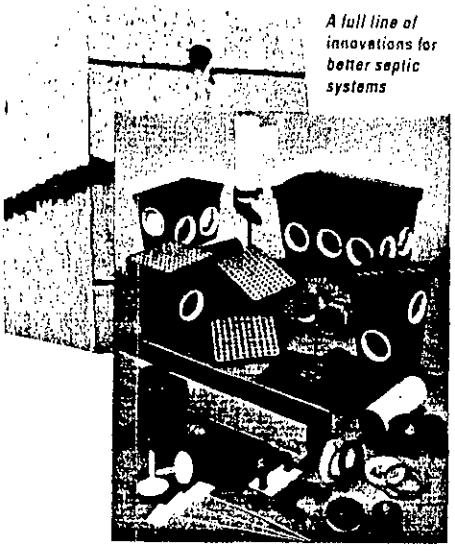


Versatile Options
Drain Grate. Black 16" x 16" HDPE grate. ADA complaint. Can be affixed to Box or Riser with 4 stainless corner screws
6" Riser. Stackable 16" x 16" HDPE Riser provides 6" elevation to the Box or Riser. Ribbed for added rigidity.

TUF-TITE®

Drainage and Septic Products

Tuf-Tite Corporation
1125 Old Rand Road
Wauconda, Illinois 60084



A full line of innovations for better septic systems

©1995 Tuf-Tite™ Corporation
Form 7HD2-1 Printed in U.S.A.

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

Sheet: 1
Property ID: 217-145-01
Lot #: 2
File #: 5288B
Code: 1

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Crescent Resources, Inc.
Applicant: Toney C. Jacobs
Address: PO Box 1003, Charlotte, N. C. 28201
Date Evaluated: 06/25/2003
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: 1.0a. Inv.
Location of Site: 18317 McKee Road
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	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 5	0-6	GR/SCL	FR/SEXP/SS/SP	>49" TO SOIL WETNESS	49+	N/A	NONE	PS, IV .3GPD/FT^2
		6-31	SBK/C	FI/SEXP/S/P					
		31-49	SBK/CL	FR/SEXP/SS/SP					
2	R, 5	0-5	GR/SL	FR/SEXP/NS/NP	>48" TO SOIL WETNESS	48+	"	"	"
		5-29	SBK/C	FI/SEXP/S/P					
		29-48	SBK/CL	FR/SEXP/SS/SP					
3	LS, 5	0-3	GR/SCL	"	"	"	"	"	"
		3-30	SBK/C	FI/SEXP/S/P					
		30-48	SBK/SCL	FR/SEXP/SS/SP					
4	"	0-3	GR/SCL	"	"	"	"	"	"
		3-32	SBK/C	FI/SEXP/S/P					
		32-48	SBK/CL	FR/SEXP/SS/SP					
5	R, 5	0-6	GR/SCL	"	"	"	"	"	"
		6-35	SBK/C	FI/SEXP/S/P					
		35-48	SBK/CL	FR/SEXP/SS/SP					
6	LS, 5	0-5	GR/SCL	"	"	"	"	"	"
		5-31	SBK/C	FI/SEXP/S/P					
		31-48	SBKSCL	FR/SEXP/SS/SP					
7	"	0-5	GR/SCL	"	>46" TO SOIL WETNESS	46	"	"	"
		5-33	SBK/C	FI/SEXP/S/P					
		33-46	SBK/CL	FR/SEXP/SS/SP					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)		
Site LTAR	.3GPD/FT^2	.3GPD/FT^2

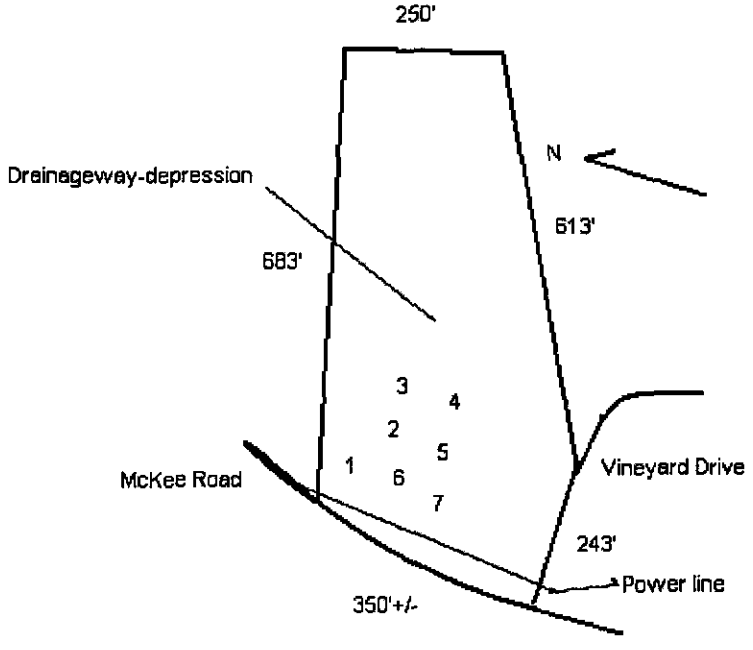
Other Factors (.1946): _____
Site Classification (.1948): PROVISIONALLY SUITABLE
Evaluated By: W. R. Marlin, LSS, 6/26/2003. W. R. Marlin
Others Present:

FILE # 5288B

COMMENTS: 100% repair

LANDSCAPE POSITIONS	GROUP	TEXTURES	.1955 LTAR	CONSISTENCE MOIST	WET
R-RIDGE	I	S-SAND	1.2 - 0.8		
S-SHOULDER SLOPE		LS-LOAMY SAND		VFR-VERY FRIABLE	NS-NON-STICKY
L-LINEAR SLOPE				FR-FRIABLE	SS-SLIGHTLY STICKY
FS-FOOT SLOPE	II	SL-SANDY LOAM	0.8 – 0.6	FI-FIRM	S-STICKY
N-NOSE SLOPE		L-LOAM		VFI-VERY FIRM	VS-VERY STICKY
H-HEAD SLOPE				EFI-EXTREMELY FIRM	NP-NON-PLASTIC
CC-CONCLAVE SLOPE	III	SI-SILT-	0.6 – 0.3		SP-SLIGHTLY STICKY
CV-CONVEX SLOPE		SIL-SILT LOAM			P-PLASTIC
T-TERRACE		CL-CLAY LOAM			VP-VERY PLASTIC
FP-FLOOD PLAN		SCL-SANDY CLAY LOAM			
		SICL-SILTY CLAY LOAM			
	IV	SIC-SILTY CLAY	0.4 – 0.1		
		C-CLAY			
		SC-SANDY CLAY			

STRUCTURE	MINERALOGY
SG-SINGLE GRAIN	SLIGHTLY EXPANSIVE
M-MASSIVE	
CR-CRUMB	EXPANSIVE
GR-GRANULAR	
SBK-SUBANGULAR BLOCKY	
ABK-ANGULAR BLOCKY	
PL-PLATY	
PR-PRISMATIC	



Chk # 1383

FEE: $200.00
DATE: 6/19/03 gc

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

[ ] CRT

TYPE APPLICATION: ✓ 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 #: 52888

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 217-145-01

STREET ADDRESS: 18317 McKee Rd

SUBDIVISION OR MOBILE HOME PARK NAME: NA

LOT NUMBER: 2

TYPE OF BUILDING (CHECK ONE):

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

TOWNSHIP (CHECK ONE):

✓ 0 MECKLENBURG
___ 1 CHARLOTTE
___ 2 DAVIDSON
___ 3 CORNELIUS
___ 4 PINEVILLE
___ 5 MATTHEWS
___ 6 HUNTERSVILLE
___ 7 MINT HILL

HEATED SQUARE FOOTAGE:

NUMBER OF BEDROOMS:

NUMBER OF OCCUPANTS:

CLOSING DATE ~~end~~ June '03

FOUNDATION FOR RESIDENCE:

___ WITHOUT BASEMENT
___ ON SLAB
___ CRAWL SPACE
✓ 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 ✓ NO TYPE: _____

WATER SUPPLY (CHECK ONE):

___ COMMUNITY (C)
___ SHARED WELL (S)
___ 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 ✓ NO
EXISTING WASTEWATER SYSTEMS ___ YES ✓ NO
EASTMENTS OR RIGHT-OF-WAYS ___ YES ✓ NO
WELL, SPRINGS OR WATERLINES ___ YES ✓ NO
DESIGNATED WETLANDS ___ YES ✓ NO

PROPERTY OWNER:

NAME: (LAST) Crescent Resources Inc (FIRST) (MI)

ADDRESS: PO Box 1003

CITY: Charlotte STATE: NC ZIP: 28201

DAYTIME PHONE: (704) 662-1905

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: (LAST) Jacobs (FIRST) Tracy (MI) C

DAYTIME PHONE: (704) 662-1905

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 2003

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] (Agent) DATE 6/19/03

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

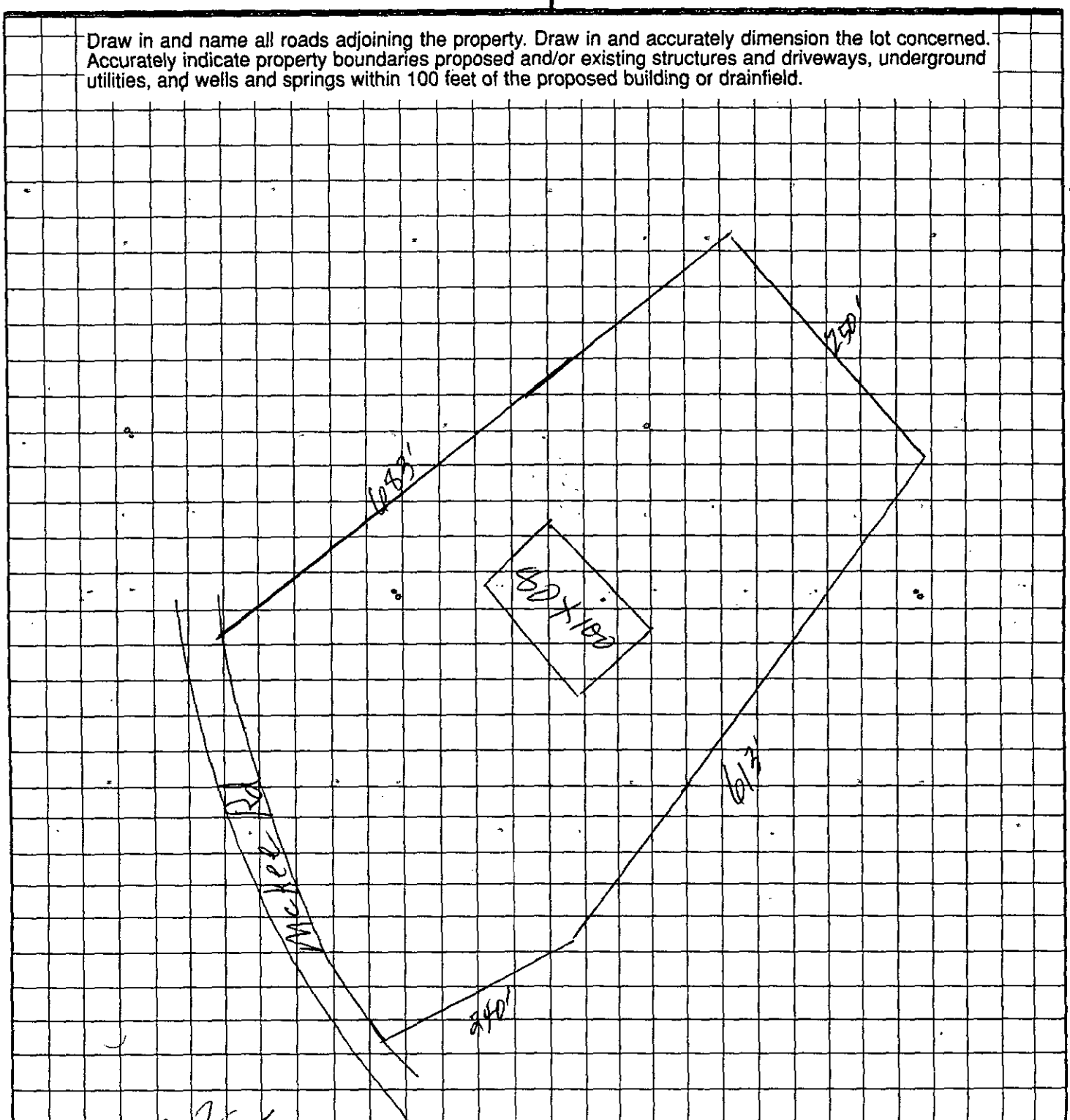
PROPOSED PLOT PLAN

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

FILE: 5288B

TC: _____

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.



Tony Clayton 6/19/03
OWNER/AGENT SIGNATURE

DATE 6/19/03

APPROVAL DATE _____

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