PP 3/4/26 Passed Field placed 9/23/10

Final to be up 5/9/11

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 01796 WASPS App #: F646

Primary ES assigned to project: DJ

Secondary ES assigned to project:

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

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☐	No ☐	N/A ☑
.1939 (a)(2)	Mineralogy Recorded?	Yes ☐	No ☐	N/A ☑
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☐	No ☐	N/A ☑
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☐	No ☐	N/A ☑
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☑
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☐	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 3 Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
130A-336(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: 4-20-11

OP issued date: 4-29-11

Review performed by: LSR Date performed: 6-15-10

JJ

8179B

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES

4646

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: 01942103
STREET ADDRESS: 13505 Hiwassee Road
CITY: Huntersville
STATE: NC **ZIP:** 28078
SUBDIVISION NAME:
LOT #: **LOT SIZE (acres):** 1 Acre
TOWNSHIP:

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

4. BUILDING INFORMATION:

BUILDING TYPE:

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

HEATED SQUARE FOOTAGE:
NUMBER OF BEDROOMS: 3
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	☑ NO
Attached 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? 1999 ☐ UNKNOWN

11. WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? _____ ☒ N/A

12. PROPERTY OWNER:

NAME: Robert B. & Helen M. Helms
ADDRESS: 4716 Johnston Oehler Road
CITY: Charlotte
STATE: NC ZIP: 28269-0834
HOME PHONE: (704) 547-1943
WORK PHONE:
MOBILE PHONE: (704) 763-7096
FAX:

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME:
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE:
WORK PHONE:
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.

X RBH (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.

_____ (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.

X Robert B. Helms
Property Owner's or Owner's Legal Representative Signature

X 6-1-10
Date

OFFICE USE ONLY

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

SEPTIC APPLICATION FEES RECEIVED: $ 250 CC 002582 DATE FEE RECEIVED: 6/1/10

WELL APPLICATION FEES RECEIVED: $ _____ #400 chk 1957 DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: _____ 9/15/10

GWS FILE NUMBER ASSIGNED: 81798

APPLICATION ID NUMBER ASSIGNED: _____

Addt Inspection

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

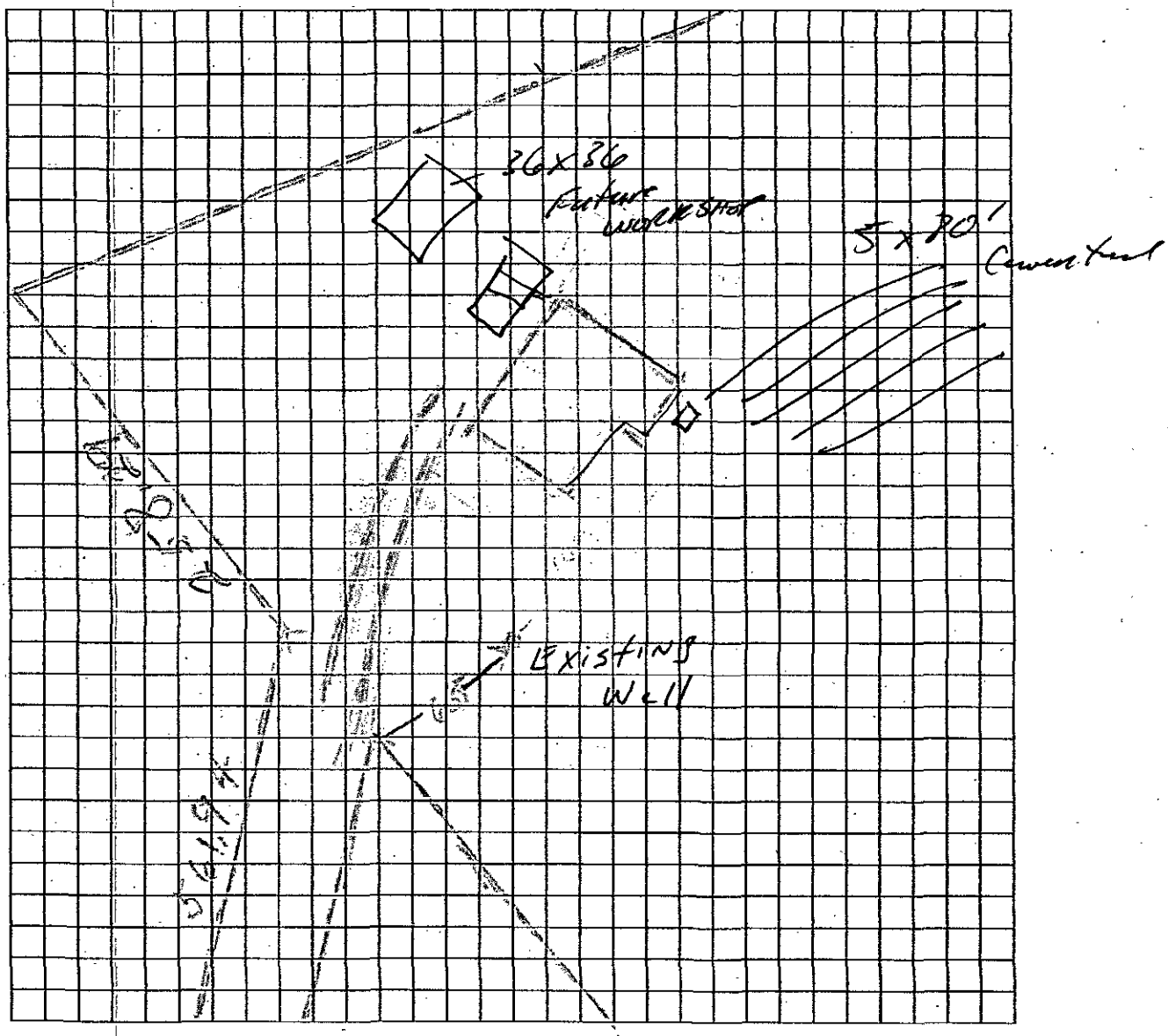
700 N. Tryon St., Suite 211
Charlotte, NC 28202
Phone: (704) 336-5103
Fax: (704) 336-6894

Date _____

$179B

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	Robert B. Helms, Jr
Date	June 1, 2010

LBC 12/15/04

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

Sheet: 1 of
Property ID: 1942103
Lot #:
File #: 8179B
AppID: 4646

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Robert Helms
Applicant Robert Helms
Address: 4716 Johnston Oehler Rd Charlotte NC 28269
Date Evaluated:
Proposed Facility: House
Design Flow (.1949): 360
Property Size: 39
Location of Site: 13505 Hiwassee Rd Huntersville NC 28078
Property Recorded: 6/21/05
Water Supply: [ ] Public [ ] 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	SOIL MORPHOLOGY 1941 1941 Consistence Mineralogy	b PROFILE FACTORS 1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Sapro Class	1944 Restr Horiz	Profile Class & LTAR
1	L.S	0-40	C/SBK	FI,S,P,SXP	>48" TO SOIL WETNESS	48	N/A	NONE	P.S IV
	14	40-48	SCL/SBK	"					.3GPD/FT2
2	"	0-30	C/SBK	"	"	"	"	"	P.S IV
		30-48	CL/SBK	FI-FR,S,SP,SXP					.325GPD/FT2
3	"	0-36	C/SBK	FI,S,P,SXP	"	"	"	"	P.S IV
		36-48	CL/SBK	FI-FR,S,SP,SXP					.3GPD/FT2
					SITE LTAR .3GPD/FT2				

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	II a	II a
Site LTAR	0.3	0.3

Other Factors (.1946):
Soil Evaluation By: Jason Jackson
Others Present:
Site Classification (.1948): PROVISIONALLY SUITABLE
Site Evaluation By: Jeremy Michelone, R.S.
Others Present: Robert Helms

COMMENTS:

100% repair area required

Profile #3 contains saprolite mixed tthroughout from 34" to 48"

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		

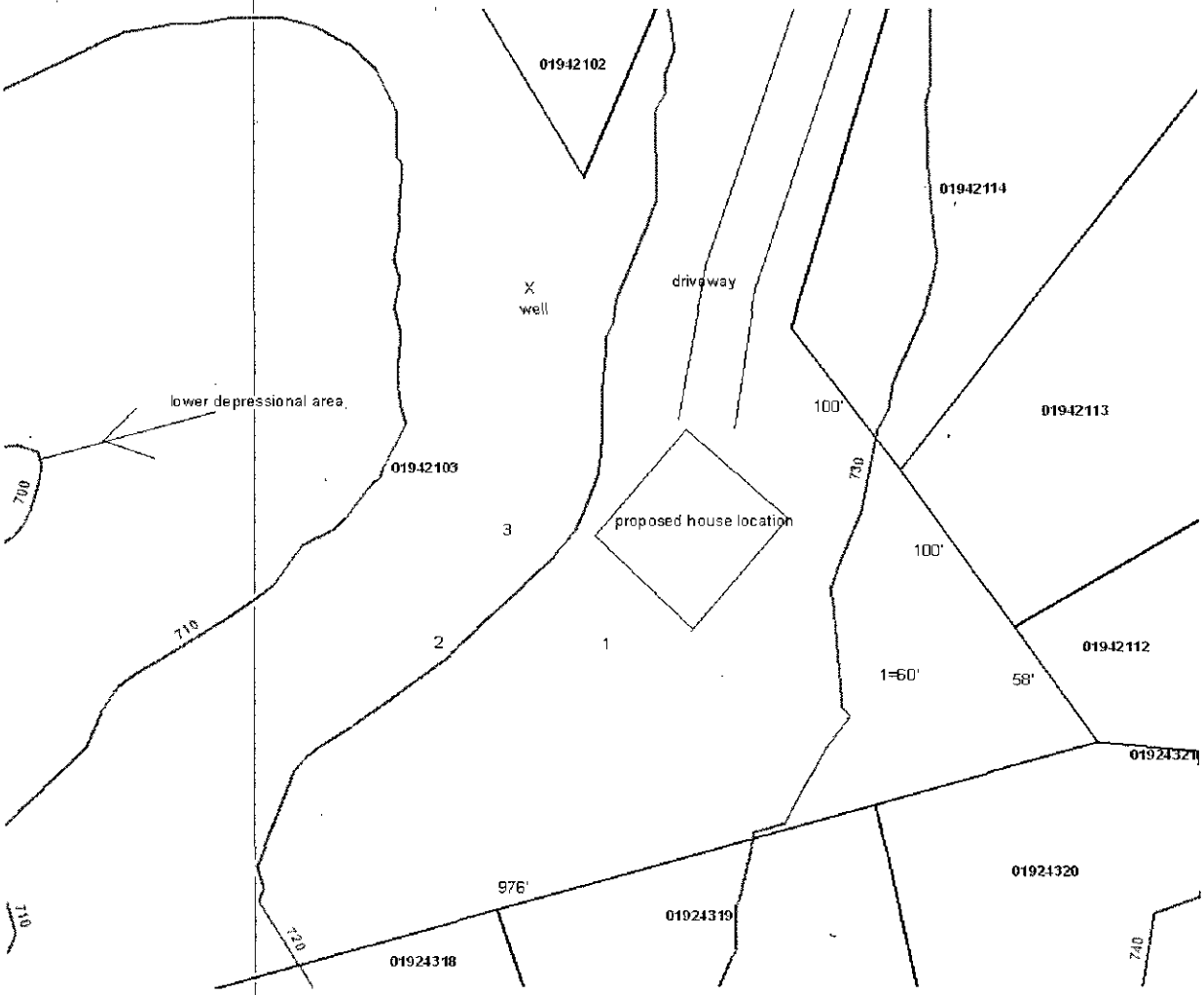
Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations

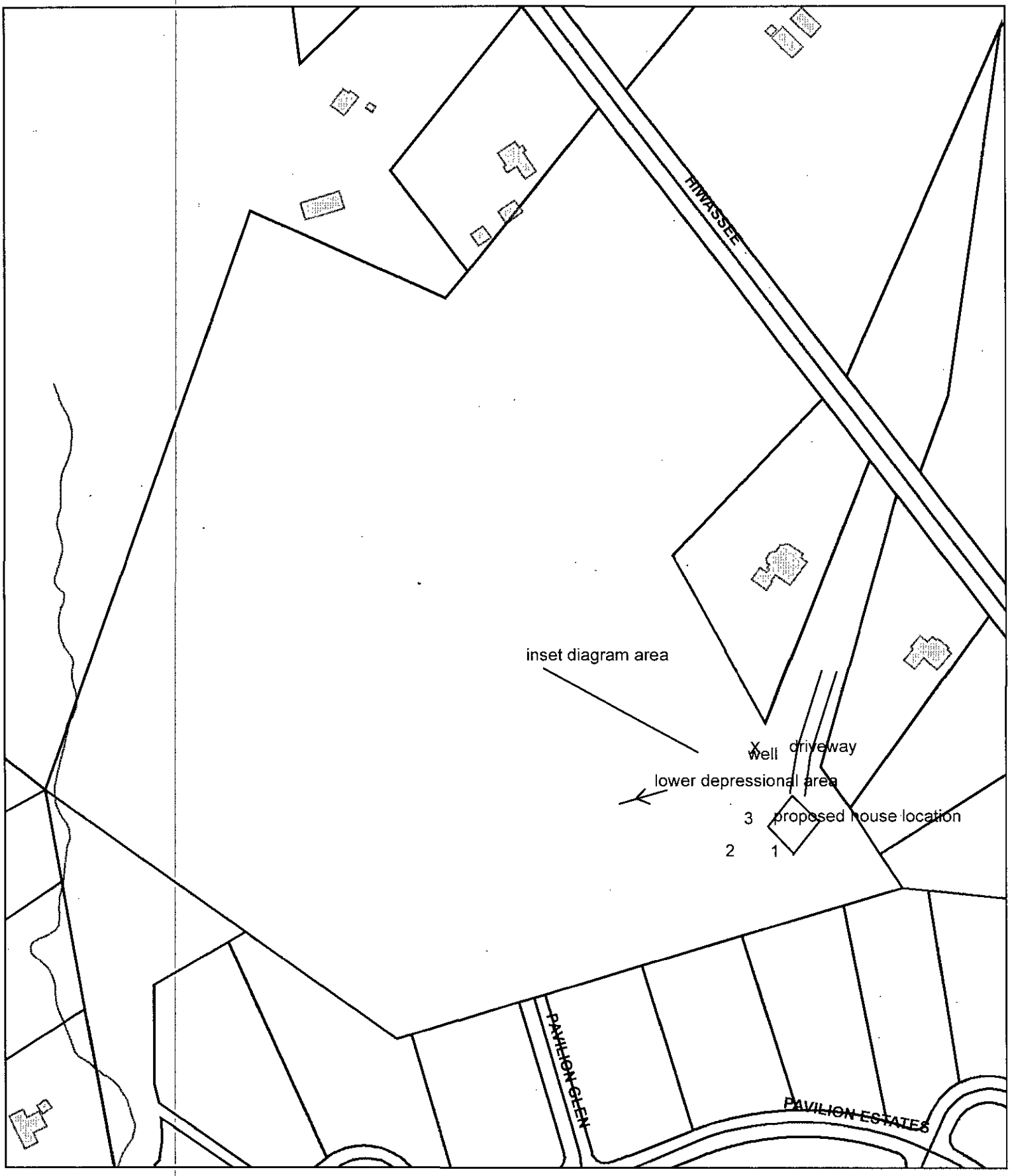
Inset Diagram

Sketch of Soil Evaluation Locations

inset area



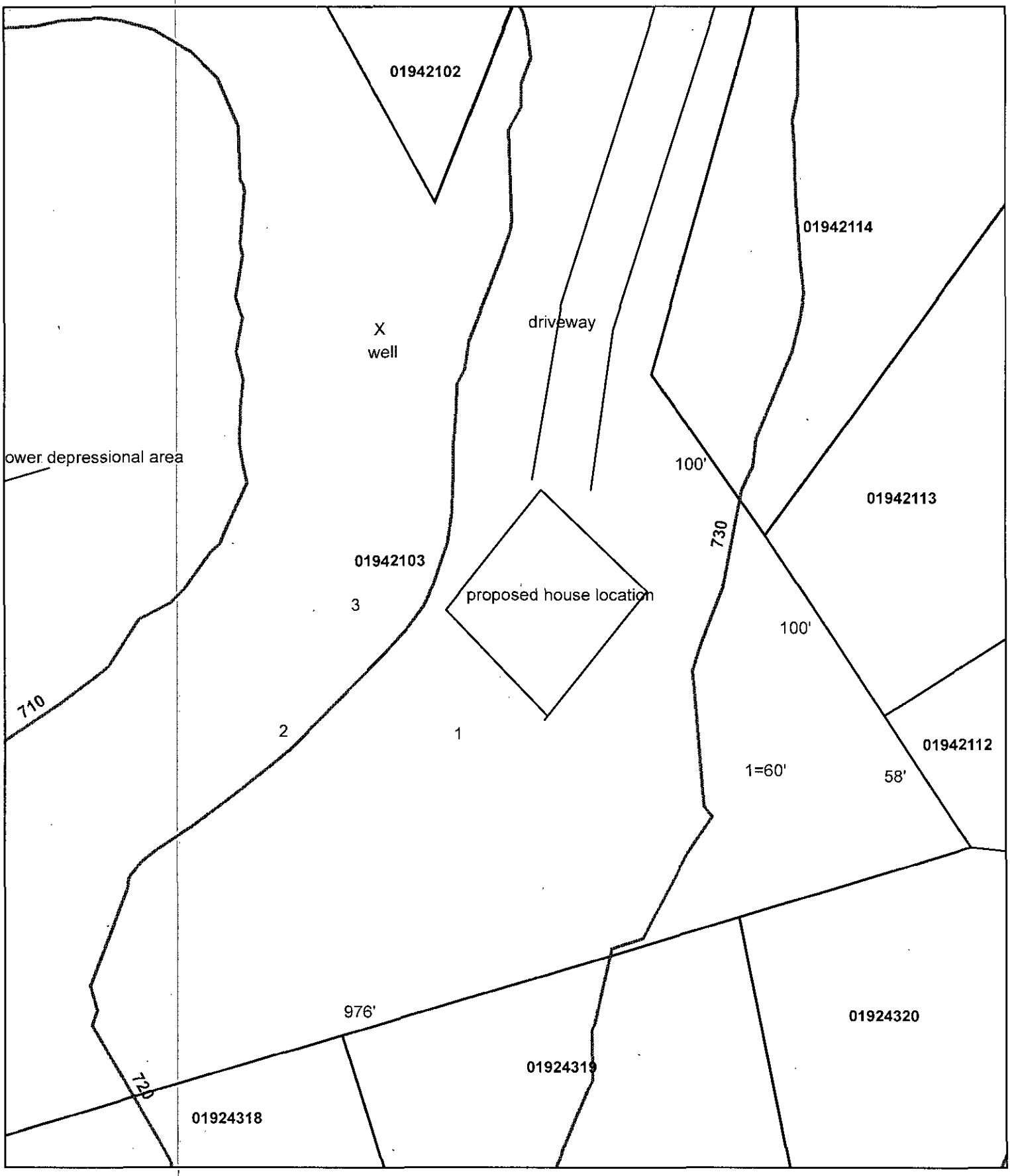
13505 Hiwasee Rd
FILE# 8179B



Map Created By: J. Jackson
Map Created On: 6/7/10

0 180 360

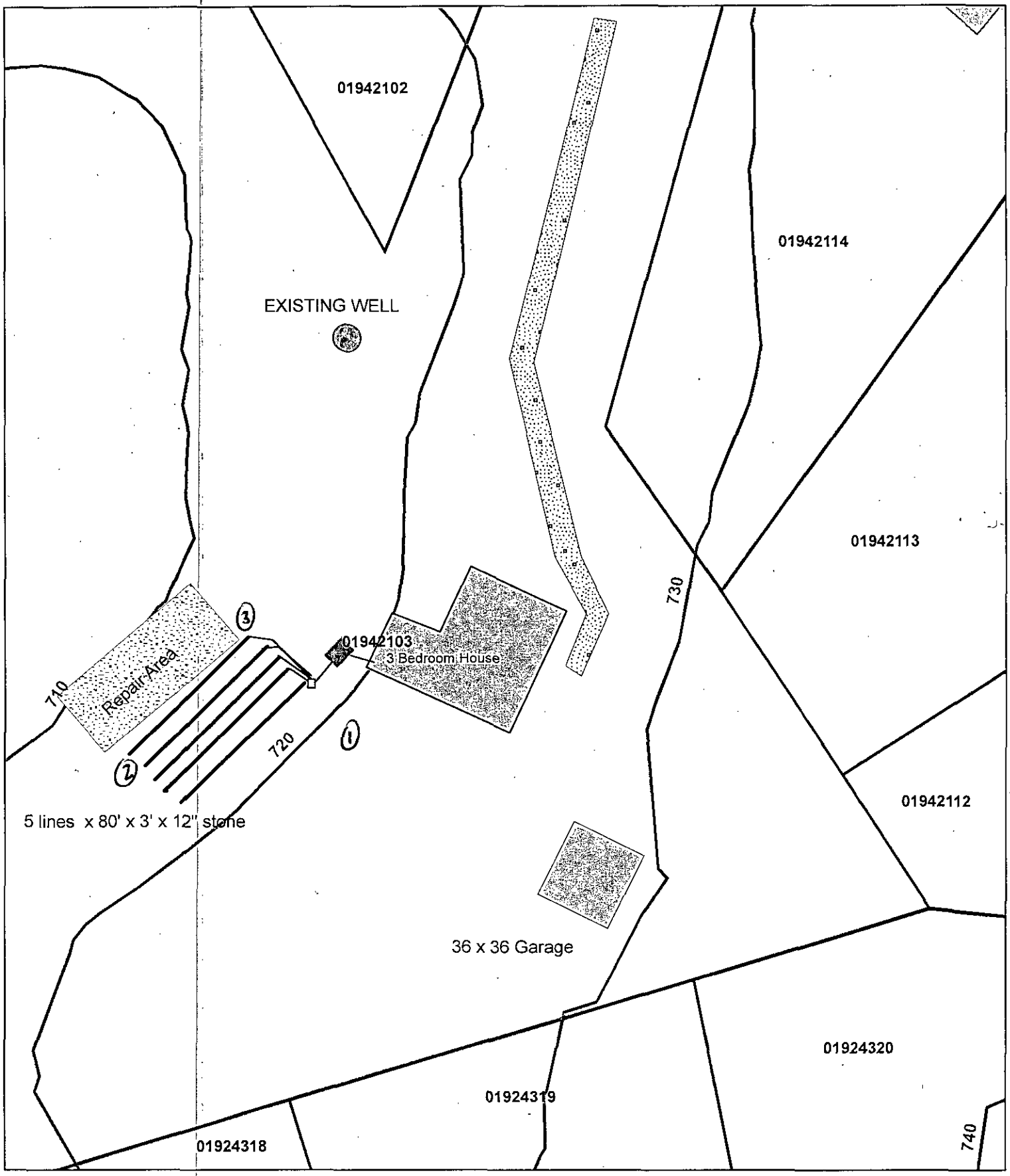
13505 Hiwassee Rd
FILE# 8179B



Map Created By: J. Jackson
Map Created On: 6/7/10

0 45 90

IMPROVEMENT PERMIT
13505 Hiwassee Road
FILE # 8179B



Jeremy Michelone, R.S
6/14/10

0 30 60 120 Feet

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 #: **30004646** GWS File #: **8179B** Tax Parcel #: **019-421-03**

- *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):** 6/14/2015

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

Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 3 # Occupants: 2

Building Foundation: Crawl Space Water Supply: Private Well

II. Initial System Type: Conventional **System Classification:** IIa

Initial System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	N/A
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:	Distribution Box		

III. Repair System Type: Conventional **System Classification:** IIa

Repair System Specifications:

Design Flow (gpd):	360	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	N/A
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:	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: Jeremy Michelone Owner/Legal Agent: Skip Canipe
Print Name

Signature: Jeremy Michelone Signature:

Date Issued: 6/14/2010

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 #: **30004646** GWS File #: **8179B**

IV. Permit Conditions/Comments:

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: Jeremy Michelone

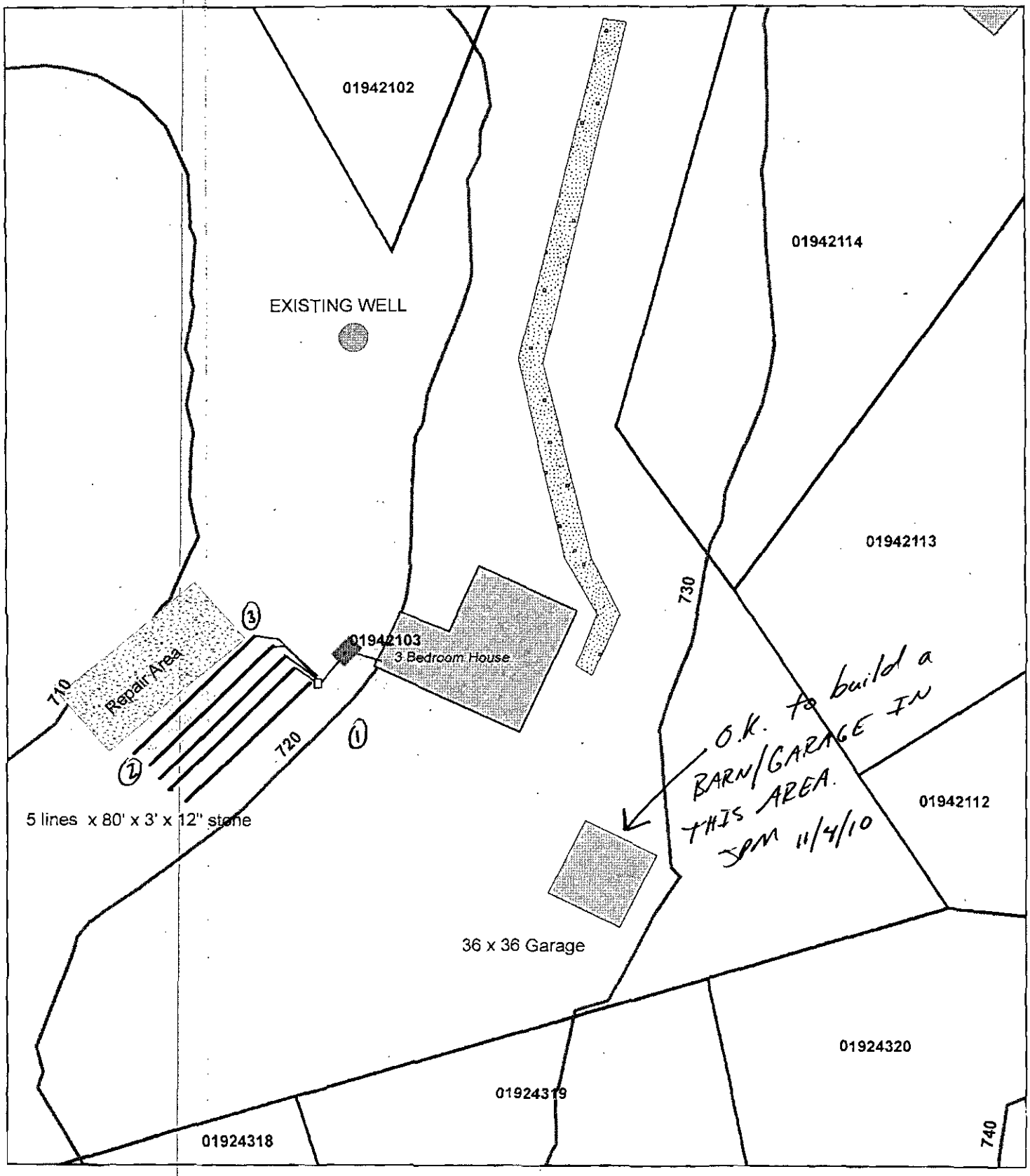
Signature: Jeremy Michelone

Date Issued: 6/14/2010

Owner/Legal Agent: Skip Canipe
Print Name

Signature: Skip Canipe

IMPROVEMENT PERMIT
13505 Hiwassee Road
FILE # 8179B



Jeremy Michelone, R.S
6/14/10

0 30 60 120 Feet

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 #: 8/1798 Permit #: 4646 Tax Parcel #: 019-421-03

Property Owner: Robert Helms

Job Location Address: 13505 Hiwassee Road

City: Huntersville State: NC Zip Code: 28078

Installation Approval Issuance Date: 4/28/11

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 6/28/11, 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: 0.360 GPD

Site LTAR: 0.3 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: ——— gallons

Drainfield Design ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 400 feet

# of Lines: 4 @ 100 feet

Depth of Media: 12 inches (Type) STONE

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 _____

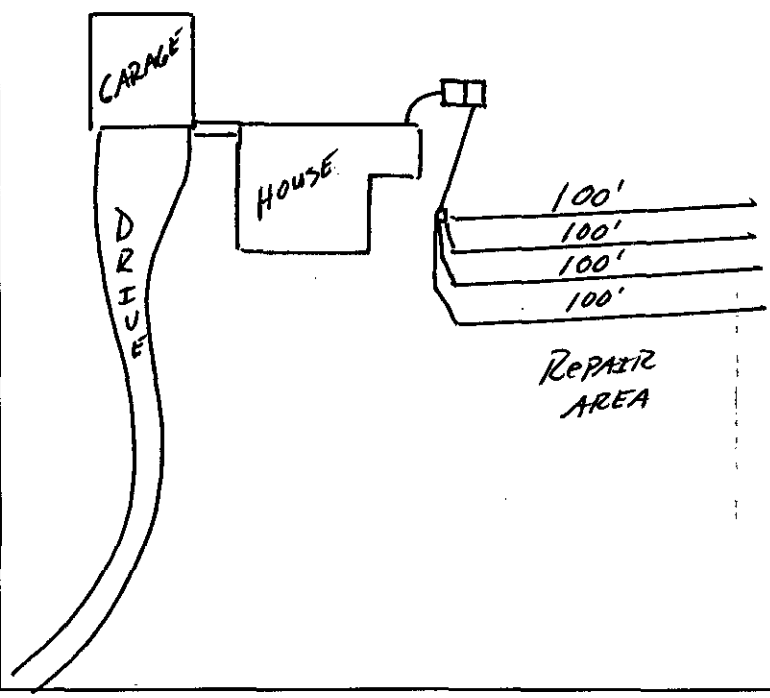
Minimum System Setbacks

Distance from Building Foundation: >5' feet

Distance from Property Line: >10' feet

Distance from Water Supply Source: >100' feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)



Comments: System Classification & Type: IIa Conventional System

DENR Authorized Agent: Jeremy Michelone, R.S. Signature: Jeremy Michelone, R.S.

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 #: 81798 Permit #: 4646 Tax Parcel #: 019-421-03

Property Owner: Robert Helms

Job Location Address: 13505 Hiwassee Road

City: Huntersville State: NC Zip Code: 28078

Operation Permit Issuance Date: 4/29/11 Contractor Name: W. Christenbury

Permitted Design Flow: 360 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: — gallons

Effluent Pump Model: —

Drainfield Installation ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 400 feet

# of Lines: 4 @ 100 feet

Depth of Media: 12 inches (Type) STONE

Depth of Cover: 18 inches

Distribution Device: D-Box

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: 75' feet

Distance from Property Line: 710' feet

Distance from Water Supply Source: 7100' feet

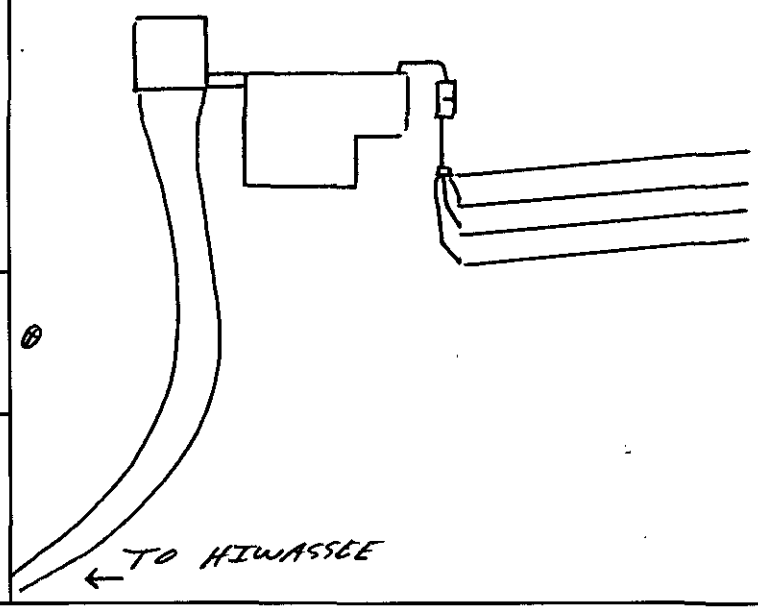
Inspection Dates

Tank(s) Inspected: 4/29/11

Excavation Inspected: 4/29/11

Pump & Controls Inspected: —

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



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: IIa, GTR, GRAVITY, NA, NA

DENR Authorized Agent: Jeremy Michelson, R.S. Signature: Jeremy Michelson, R.S.

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 #: 8179B Permit #: 4646 Tax Parcel #: 019-421-05

Property Owner: ROBERT HELMS

Job Location Address: 13505 Huntersville Road

City: Huntersville State: NC Zip Code: 28078

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: IIa

*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:

DENR Authorized Agent: Jeremy Mickelson, RS. Date: 4/29/11

Signature: Jeremy Mick. RS.

MECKLENBURG COUNTY

Land Use & Environmental Services Agency
Groundwater & Wastewater Services

August 7, 2008

Robert B. Helms
4716 Johnston Oehler Rd
Charlotte, NC 28269

RE: Water Sampling Results
13505 Hiwassee
PID #019-421-03

Dear Robert:

On May 22 and July 7, 2008, staff with Mecklenburg County Groundwater & Wastewater Services sampled your drinking water well.

Laboratory results for the analysis are attached and indicate that at the time of sampling, total coliform bacteria were present (May 22 sample) and absent (July 7 sample), nitrate level was 1.0 mg/l, (Nitrate-N levels are acceptable if ≤ 10 mg/l), and the nitrite level was <0.05 mg/l, (Nitrite levels are acceptable if <1.0 mg/l).

A copy of the laboratory results is enclosed for your review. If you have any questions concerning these results, please contact me at 704-432-4259.

Sincerely,

Kim Garrett
Environmental Specialist
Mecklenburg County Groundwater & Wastewater Services
kimberly.garrett@mecklenburgcountync.gov

Enclosure: Laboratory Analysis

PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5103

FILE: _____

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.

(1) 0-40 C/SBk
40-46+ SCL "
(.3)
14% 45.

(2) - 0-30 C/SBk
30-40 CL/SBk - SP
(.325)

(3) - 0-36 C/SBk
36-48 SCL-C/SBk
Sap mixed
(.3)



760/3 = 1000/3 = 400 sq ft
300 for 25% Red = 75' to 4 lines

OWNER/AGENT SIGNATURE

DATE

APPROVAL DATE _____

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

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

Sheet: 1 of
Property ID: 1942103
Lot #:
File #: 8179B
AppID: 4646

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Robert Helms
Applicant Robert Helms
Address: 4716 Johnston Oehler Rd Charlotte NC 28269
Date Evaluated:
Proposed Facility: House
Design Flow (.1949): 360
Property Size: 39
Location of Site: 13505 Hiwassee Rd Huntersville NC 28078
Property Recorded: 06/21/1905
Water Supply: [ ] Public [ ] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	L.S	0-40	C/SBK	FI,S,P,SXP	>48" TO SOIL WETNESS	48	N/A	NONE	P.S IV
	14	40-48	SCL/SBK	"					.3GPD/FT2
2	"	0-30	C/SBK	"	"	"	"	"	P.S IV
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3	"	0-36	C/SBK	FI,S,P,SXP	"	"	"	"	P.S IV
		36-48	CL/SBK	FI-FR,S,SP,SXP					.3GPD/FT2
					SITE LTAR .3GPD/FT2				

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

Other Factors (.1946):
Soil Evaluation By: Jason Jackson
Others Present:
Site Classification (.1948): PROVISIONALLY SUITABLE
Site Evaluation By:
Others Present:

COMMENTS:

100% repair area required

Profile #3 contains saprolite mixed tthroughout from 34" to 48"

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
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CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
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Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SXP-Slightly Expansive
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Sketch of Soil Evaluation Locations

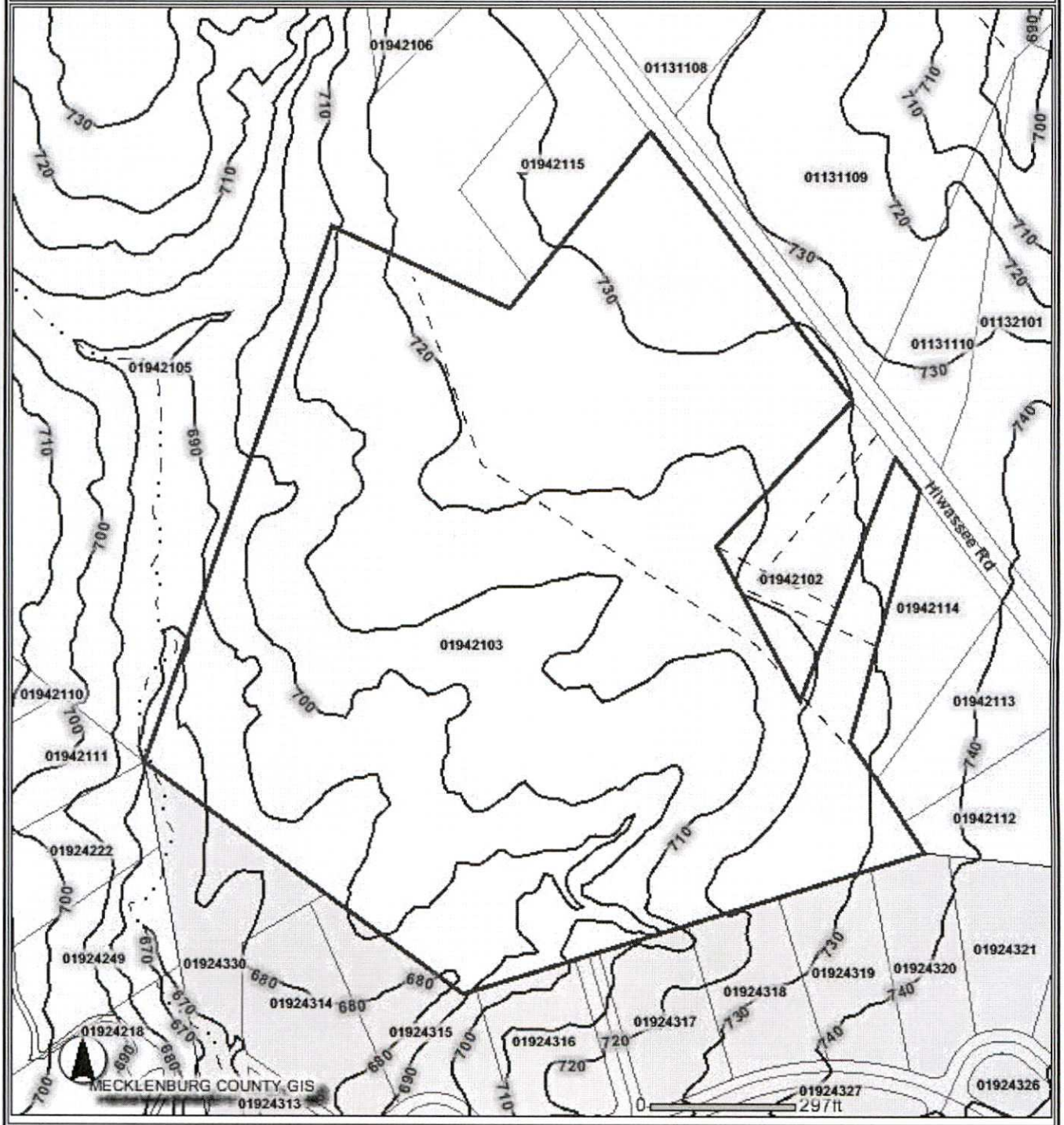
Inset Diagram

Mecklenburg County, North Carolina

POLARIS

Property Ownership Land Records Information System

Date Printed: Mon Jun 7 14:02:38 EDT 2010



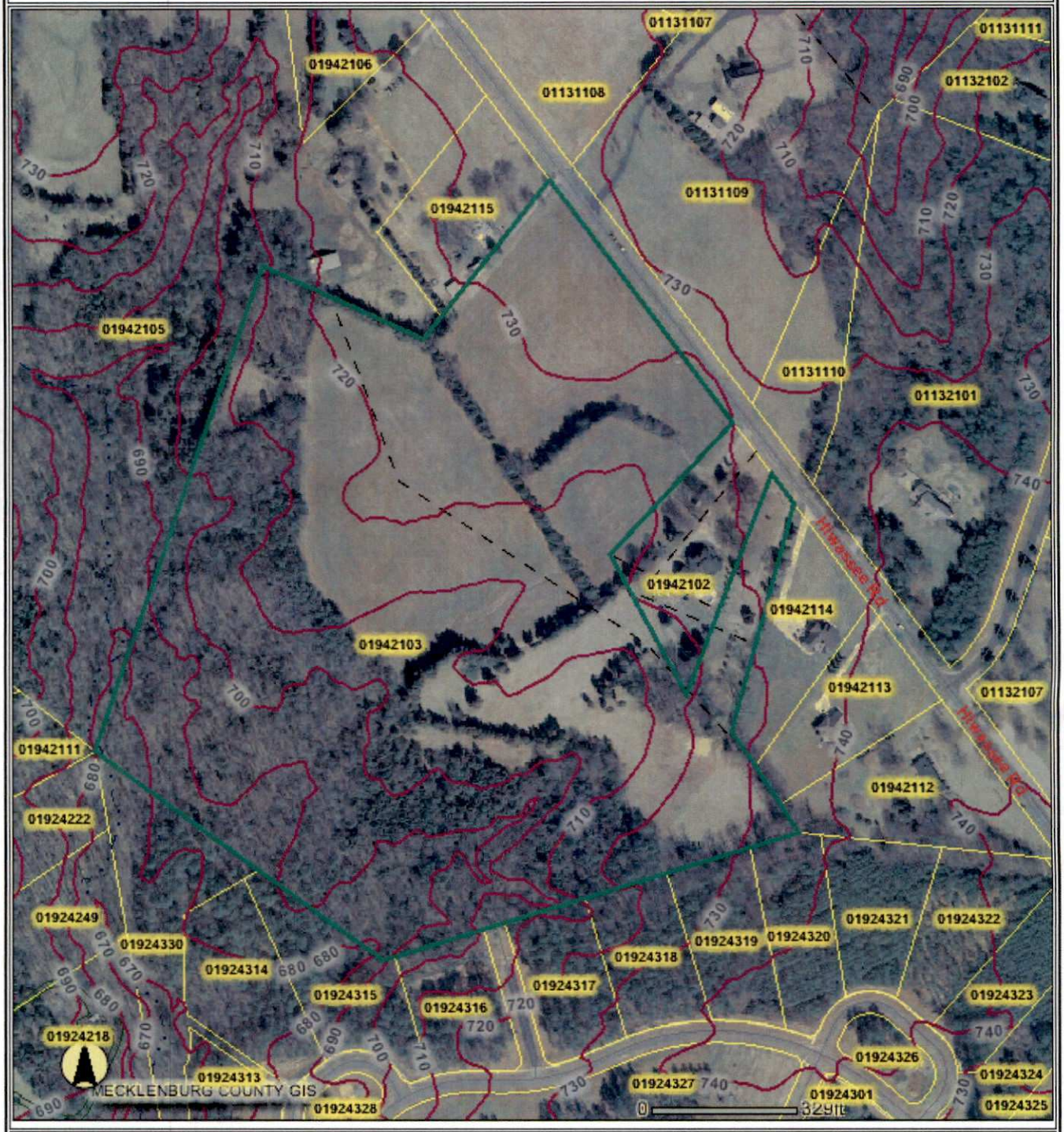
This map is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should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

Mecklenburg County, North Carolina

POLARIS

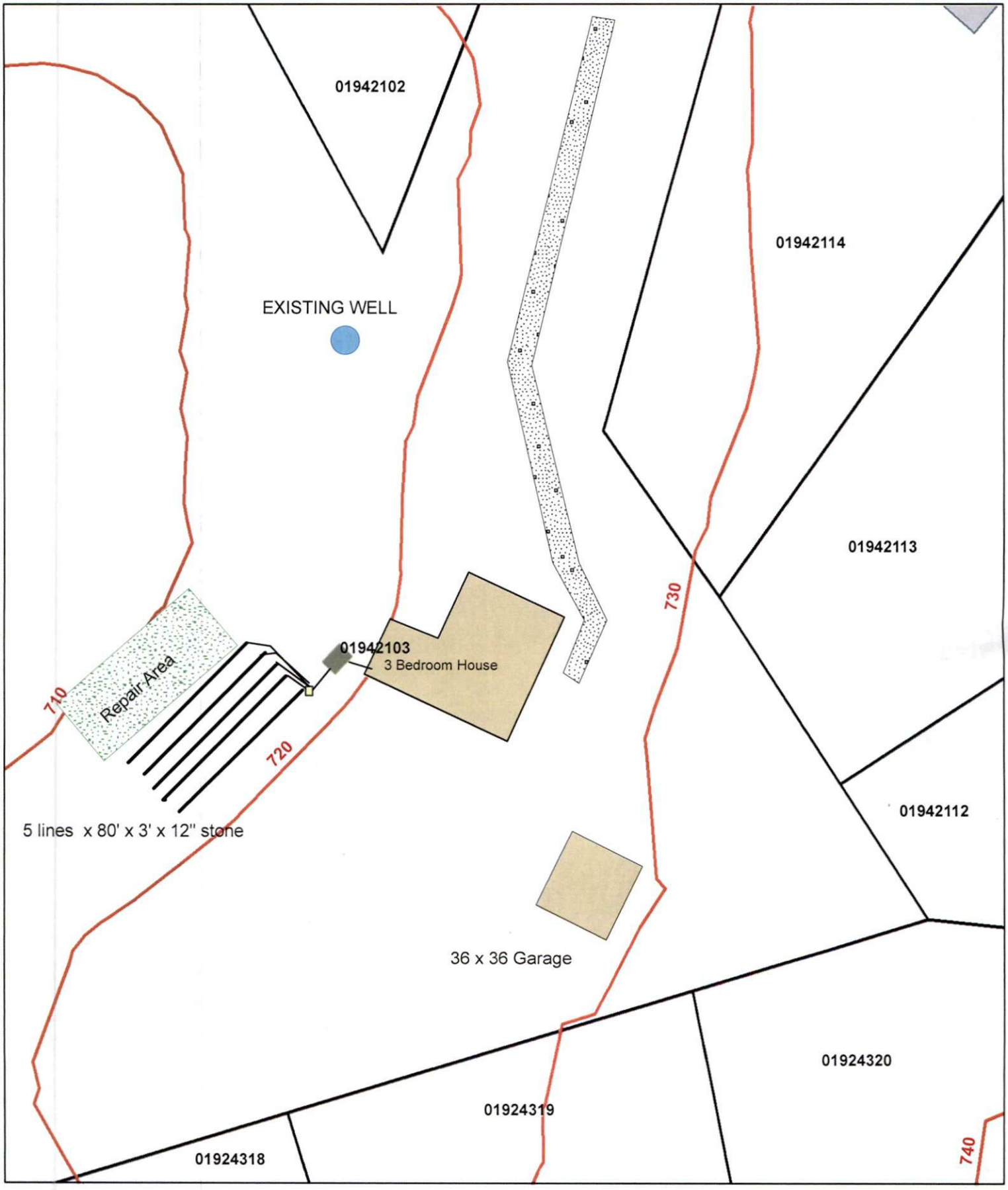
Property Ownership Land Records Information System

Date Printed: Wed Jun 9 09:35:54 EDT 2010



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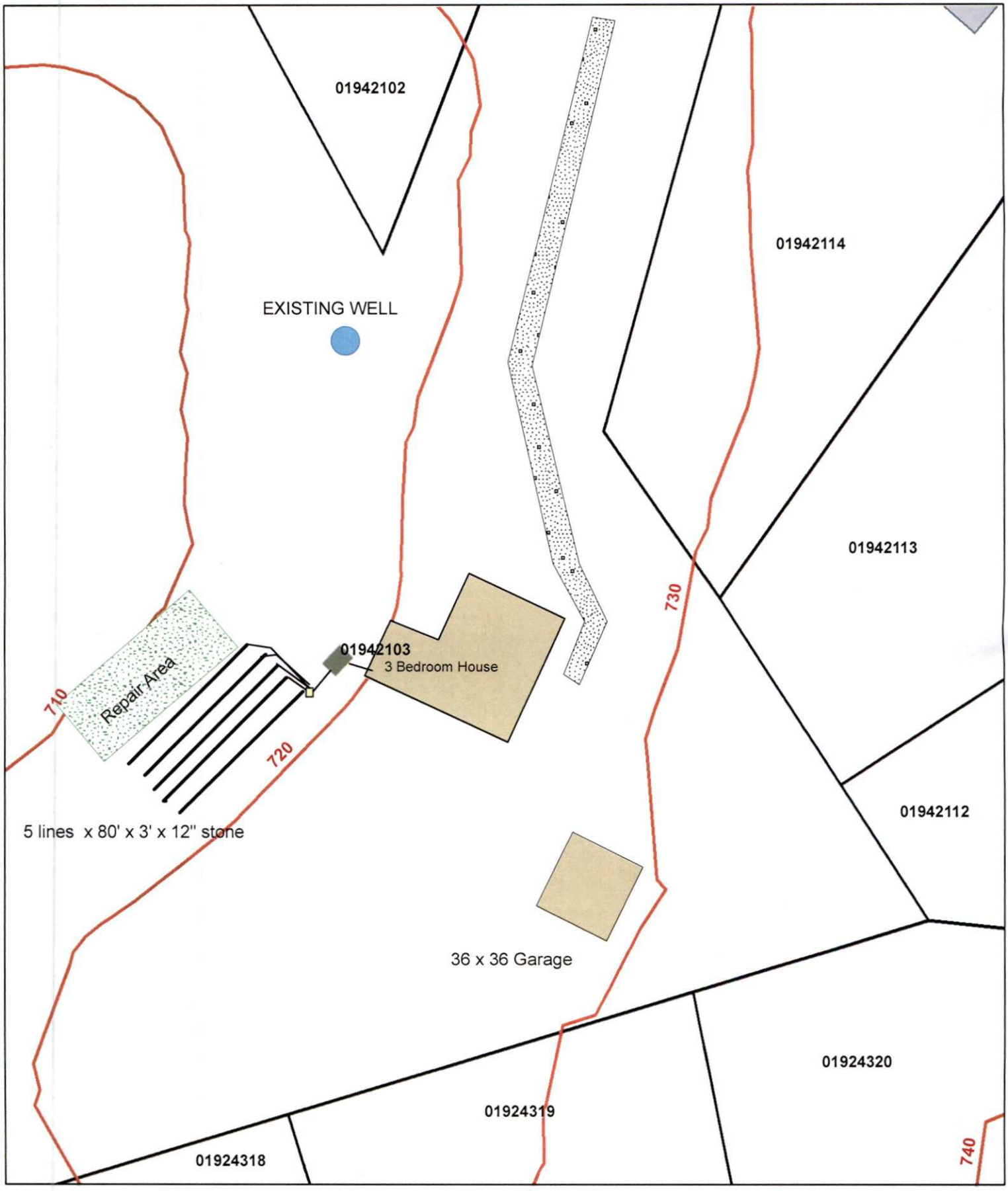
IMPROVEMENT PERMIT
13505 Hiwassee Road
FILE # 8179B



Jeremy Michelone, R.S
6/14/10

0 30 60 120 Feet

IMPROVEMENT PERMIT
13505 Hiwassee Road
FILE # 8179B



Jeremy Michelone, R.S
6/14/10

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

Sheet: 1 of
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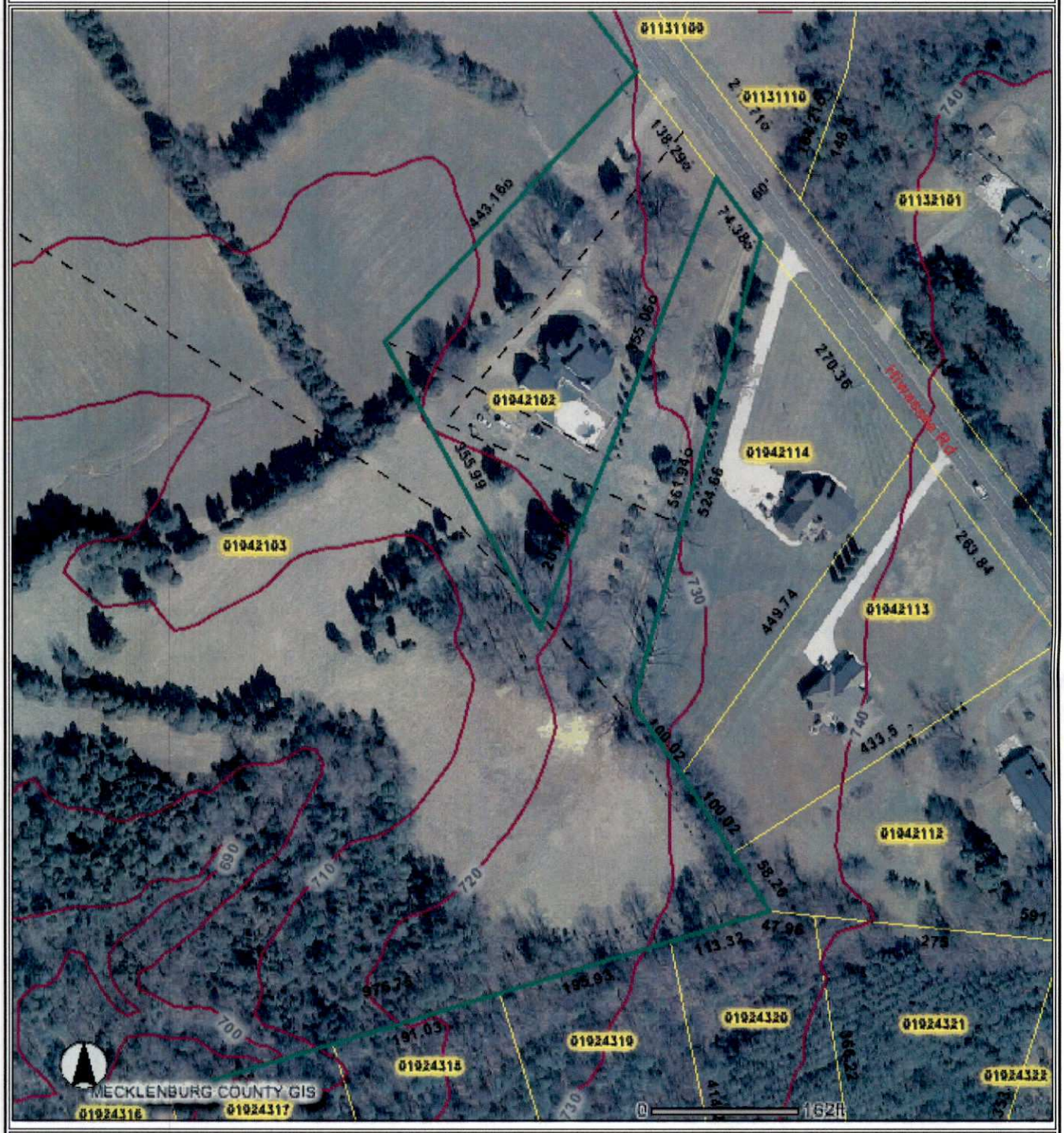
Mecklenburg County, North Carolina

POLARIS

Property Ownership Land Records Information System

Date Printed: Mon Jun 14 10:51:52 EDT 2010

13505 Hiwassee Road



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