Paid $350.00 Statesville
Paid $500.00 Mooresville
12-27-13

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 1: *APPLICATION FORM*

Application For:

(X) New Well Permit (see well app.) ( ) Well Repair Permit ( ) Well Abandonment
(X) Septic Improvement Permit (X) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: ( ) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable (X) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information:

Applicant Name: CMH HOMES INC Address: 1124 CHARLOTTE HWY TROUTMAN NC 28166 Phone: (704) 883-6148

Owner Name: GROVER C BROWN REV. TRUST Address: 1897 HANOS MILL HWY, ROCK HILL, SC 29732 Phone: _____

Property Information:

Street Address: 236 MCCRARY ROAD MOORESVILLE, NC 28117

Subdivision Name: BROWN'S COVE Section/Phase: _____ Lot Number: 2

Driving Directions: GO WEST ON CENTER AVE; LEFT ON CHURCH ST; RIGHT ON MCLELLAND; LEFT ON HWY 150; TURN LEFT ON MCCRARY ROAD. SITE ON RIGHT.

Site Development Information: *(check or complete ALL that apply)*

(X) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

Maximum Number of Bedrooms: 3
Maximum Number of Occupants: 6
( ) Swimming Pool
( ) Other Addition/Structure: _____

(X) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development:
Type of Business: _____
Square Footage of Building: _____
Maximum Number of Employee: _____
Maximum Number of Seats/Beds/Other: _____

Water Supply:

(X) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: *(you may rank in order of preference)* Year existing system installed: _____

( ) No Preference ( ) Alternative ( ) Conventional (X) Innovative ( ) Modified Conventional ( ) Other: _____

Please answer the following to the best of your ability:

( ) Yes (X) No Does the site contain any jurisdictional wetlands?
( ) Yes (X) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (X) No Is the site subject to approval by any other public agency?

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.

Signature: _____ 12-27-13
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 2: ***SITE PLAN WORKSHEET***

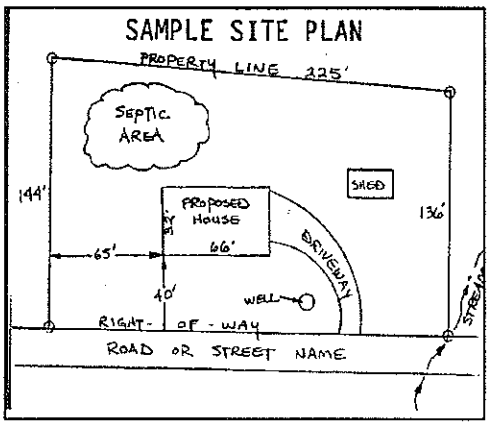
SEE THE "SAMPLE SITE PLAN" BELOW. ***INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!***

Place an (X) beside each item as you complete the site plan:

- (X) **Property Line measurements are clearly identified**
- (X) **All proposed structures are indicated**
- (X) **Front and side setbacks from property line**
- (X) **Preferred driveway location and well location**
- (X) **Area you prefer your septic system to be placed**
- (X) **North arrow, or other sufficient indicator of direction**

Circle N/A on the following if appropriate:

- **Location of septic systems and wells within 100' of your property** (N/A)
- **Location of easements and rights of ways on your property** (N/A)
- **Location of any designated wetlands on the property** (N/A)



USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

SEE ATTACHED PLAN

Signature: Wendell Cox

Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

12-27-13

DATE

IREDELL COUNTY

PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER

200603

Issue Date: 12/27/2013

Permit Type: IMPROVEMENT PERMIT APPLICATION

Parcel Number	Street Address	Jurisdiction
4637270460.000	236 MCCRARY ROAD	MOORESVILLE

Owner Information	Applicant Information	Contractor Information
Owner: BROWN GROVER C REV TR Address: , Phone:	Applicant: CMH HOMES INC Address: 1124 CHARLOTTE HWY TROUTMAN, NC 28166 Phone:	Contractor: CMH HOMES INC Address: 1124 CHARLOTTE HWY TROUTMAN, NC 28166 Phone: License Type: BLDG License Number: 59143-U

Project Description

NEW MODULAR HOME - IREDELL

Scope of Work

MODULAR

Permit Details:

	IMPROVEMENT PERMIT FEE	Amount:	~~850.00~~
		Amount:	
		Amount:	500.00
		Amount:	
		Amount:	
		Amount:	
		Amount:	

Paid $500.00 12-27-13
Mooresville

I hereby certify that all information in this application is correct and all work will comply with the state code and all other applicable state and local laws, ordinances and regulations. The respective department will be notified of any changes in the approved plans, a change of contractor, and/or specifications for the project permitted herein. This application becomes a permit only when validated and approved.

Signature of Owner/Contractor

Date: 12/27/2013

Paid $350 Statesville
Paid $500 Mooresville 12-27-13
$850.00 total Fast Track Pump

ANY PERMIT ISSUED EXPIRES SIX (6) MONTHS AFTER ISSUANCE IF NO INSPECTIONS HAVE BEEN MADE. ANY PERMIT ISSUED SHALL EXPIRE TWELVE (12) MONTHS AFTER LAST INSPECTION IF THE WORK IS DISCONTINUED.

Permit Number	3722	TOTAL FEES:	~~$ 850.00~~ 500.00

PRESSURE MANIFOLD DISTRIBUTION
FOR APPROVED INNOVATIVE WASTEWATER SYSTEM

Applicant:	CHM Homes, Inc.	
Address:	1124 Charlotte Hwy Troutman, NC 28166	
Phone:	704.883.6148	
County:	Iredell	
Location:	236 McCrary Road-Mooresville	
Source of Wastewater Flow:	3 Bedroom Single Family Residence	
Estimated Daily Wastewater Production:	360 gpd	
System Flow:	14.22	gpm

Design Specifications

Drainfield Size:	300	lf
Loading Rate:	0.3	gpd/ft
Depth of Gravel in Trench:	NA (25% reduction)	
Gravel Size:	NA (25% reduction)	
Trench Depth:	25 in	
Trench Width:	36 in.	
Septic Tank Size:	1000	gal
Pump Tank Size:	1000	gal
Estimated Supply Line Length:	160	ft
Supply Line Diameter:	2 in. SCH 40 PVC	
Supply Line Volume:	27.84	gal
Dosing Volume:	137.13	gal
Supply Manifold:	4 in. SCH 80 PVC	
Supply Manifold Length:	3 ft. (minimum)	
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents	
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.	
Pressure Head:	2 ft.	
Friction Head:	1.34	ft
Elevation Head:	23.00	ft
Total Dynamic Head:	30.30	ft
Threaded Union:	In Tank	
Gate Valves:	1 in Tank 1 at Pressure Manifold	
Check Valves:	In Tank	
Anti-Siphon Hole:	NA	
Additional Comments:	Soil suitability was performed by S&FS	

236 McCrary Road-Mooresville

APPROVED INNOV. W/ PRESSURE MANIFOLD DIST. DESIGN

DESIGN FLOW:	360	gpd
SOIL APPLICATION RATE:	0.3	gpd/ft
TOTAL AREA TRENCH BOTTOM:	900	sqft
TOTAL LATERAL LENGTH:	300	ft
NUMBER OF FIELDS:	1	
LATERAL LENGTH REQUIRED PER FIELD:	300	ft
SUPPLY LINE LENGTH:	160	ft
TOTAL DYNAMIC HEAD:	30.30	ft
MANIFOLD SIZE:	4 in.SCH 80 PVC	
DOSING VOLUME:	137.13	
PUMP TANK DRAW DOWN*:	6.5	inches
SEPTIC TANK SIZE:	1000	gal
PUMP TANK SIZE:	1000	gal

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

236 McCrary Road-Mooresville

LAYOUT FOR 3 BEDROOM HOME

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		3.6			100.00		
INSTR. 1			103.60				
HOUSE CNR				14.80	88.80		
P. TANK				23.90	79.70		
1	BLUE			2.40	101.20	56	56
2	PINK			3.50	100.10	125	125
3	RED			5.10	98.50	185	185
4	***ORANGE***			***6.40***	***97.20***	***178***	***150***
5	***YELLOW***			***7.60***	***96.00***	***172***	***150***
					Total	716	666

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
SYSTEM	***300***	***0.3***	***INNOV***	***0.30***	***INNOV(25%)***	***PRESSURE MANIFOLD***
Repair	366	0.3	INNOV	0.30	INNOV(25%)	PRESSURE MANIFOLD

Notes:
** TBM located top of ground @ front left eip
**TBM is assumed to be 100'
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags
**BS, HI, and FS indicate rod readings

PRESSURE MANIFOLD TAPSHEET - 236 McCrary Road

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area	Line LTAR
4	Orange	97.2	150	SCH 40 1/2	**7.11**	450	0.15
5	Yellow	96	150	SCH 40 1/2	**7.11**	450	0.15
	total	**feet =**	**300**	**gal/min =**	**14.22**		
			Des. Flow	**360**			
			Pump Run=	**9.64**			
			soil LTAR	**0.3**			
			LTAR +5%	**0.32**			
			LTAR with INNOV	**0.40**			
			LTAR with INNOV + 5%	**0.42**			

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

Sheet 1 of 1
PROPERTY ID #: 4637270460
COUNTY: IREDELL

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

APPLICANT: CMH HOMES INC — APPLICATION DATE: 12-27-13
ADDRESS: 1124 CHARLOTTE HWY, TROUTMAN, NC 28166 — DATE EVALUATED: 12/6/13
PROPOSED FACILITY: RES. 3BR — PROPOSED DESIGN FLOW (.1949): 360 GPD — PROPERTY SIZE: 1.19AC
LOCATION OF SITE: 236 MCCRARY ROAD MOORESVILLE NC 28117 — PROPERTY RECORDED: YES
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	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B1	L/13%	0-7	BR SCL WMSBK	FR SS SP	N/A	48"	N/A	N/A	PS .3gpd/ft²
		7-44	R C MFABK	FR SS SP					
		44-48	R SCL WMSBK	FR SS SP					
2	L/13%	0-2	B SL GR	VFR NS NP	N/A	48"	N/A	N/A	.3gpd/sf
		2-12	YB SCL WFABK	FR SS SP					
		12-48	R C WMABK	FR SS SP					
3	L/18%	0-2	B SL GR	FR NS NP	N/A	40"	PS	N/A	.3gpd/ft²
		2-26	R C WFABK	FR SS SP					
		26-40	R CL WMBBK	FR SS SP					
		40-48	VAR L/CL MASS/PACK	VFR SS SP					
4	L/13%	0-2	B SL WFGR	FR SS SP	N/A	45"	PS	N/A	.3gpd/ft²
		2-28	R C WMSBK	FR SS SP					
		28-45	R CL WMABK	FR SS SP					
		45-48	VAR L MASS	VFR NS NP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	300	366
System Type(s)	INNOV (25%)	INNOV (25%)
Site LTAR	.3	.3

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

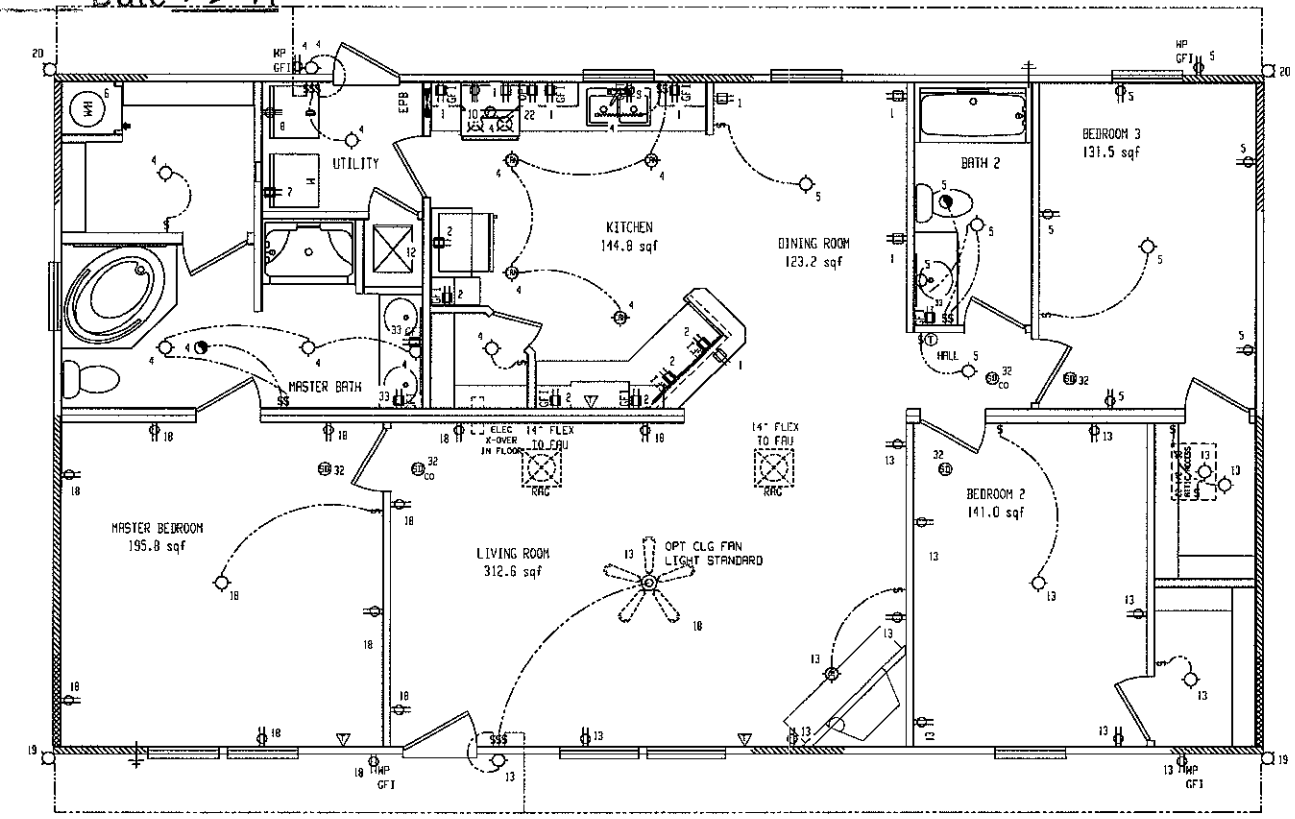
Approved by ICHD
ALP
1-2-14

COMMENTS: _____

Acknowledgement Of Plans Submittal ONLY!

EW-LP Date 12-27-13

ALP Date 1-2-14



APPROVED BY NTA INC. 06/23/2013
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.
David Richter

NOTE: ON MODULARS, 15 & 20 AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS MUST BE PROTECTED BY AN ARC-FAULT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12 OF THE NEC. AFCI IS NOT REQUIRED FOR SMOKE DETECTORS IN SOUTH CAROLINA

ELECTRICAL SCHEDULE

CIR. NO.	DESCRIPTION	BRK. AMP.	VOLTS	COPR. WIRE
1	PORTABLE APPLIANCES	20	120	12
2	PORTABLE APPLIANCES	20	120	12
3	PORTABLE APPLIANCES	20	120	12
4	GEN. LIGHTING GFI RCPT.	15	120	14
5	GEN. LIGHTING GFI RCPT.	15	120	14
6	ELEC. WATER HEATER	CIRCUITS VARY, SEE		
DRYER PAGE PLN-3.1 FOR MOD, PLN-1.1 FOR MOD				
7	WASHER RECEPT.	20	120	12
8	DRYER RECEPT.	30	240	10
9	OPT. DISHWASHER	15	120	14
10	ELECT. RANGE/OVTOP	40	240	8
11	GAS FURNACE	15	120	14
12	ELECTRIC FURNACE	CIRCUITS VARY, SEE		
DRYER PAGE PLN-3.5 FOR MOD, PLN-1.5 FOR MOD				
13	GEN. LIGHTING GFI RCPT.	15	120	14
14	OPT. COOLER BOX	15	120	14
15	OPT. GARBAGE DISPOSAL	15	120	14
16	FREEZER	20	120	12
17	OPT. WHIRLPOOL	20	120	14
18	GEN. LIGHTING GFI RCPT.	15	120	14
19	GEN. LIGHTING GFI RCPT.	15	120	14
20	GEN. LIGHTING GFI RCPT.	15	120	14
21	GEN. LIGHTING GFI RCPT.	15	120	14
22	OPT. MICROWAVE	20	120	12/2
24	ELECT. BUILT-IN OVEN	20	240	12/2
25	GENERAL LIGHTING	15	120	14
26	GENERAL LIGHTING	15	120	14
27	GENERAL LIGHTING	15	120	14
28	GENERAL LIGHTING	15	120	14
29	GENERAL LIGHTING	15	120	14
30	GENERAL LIGHTING	15	120	14
31	ETC INSTALLED HEAT PUMP	40	240	8/2
32	SMOKE ALARMS	15	120	14
33	BATH GFI	20	120	12

BRAND: SCHULT
SERIES: OE32

CMH MANUFACTURING, INC.

REVISIONS

	BY	DATE

GENERAL NOTES

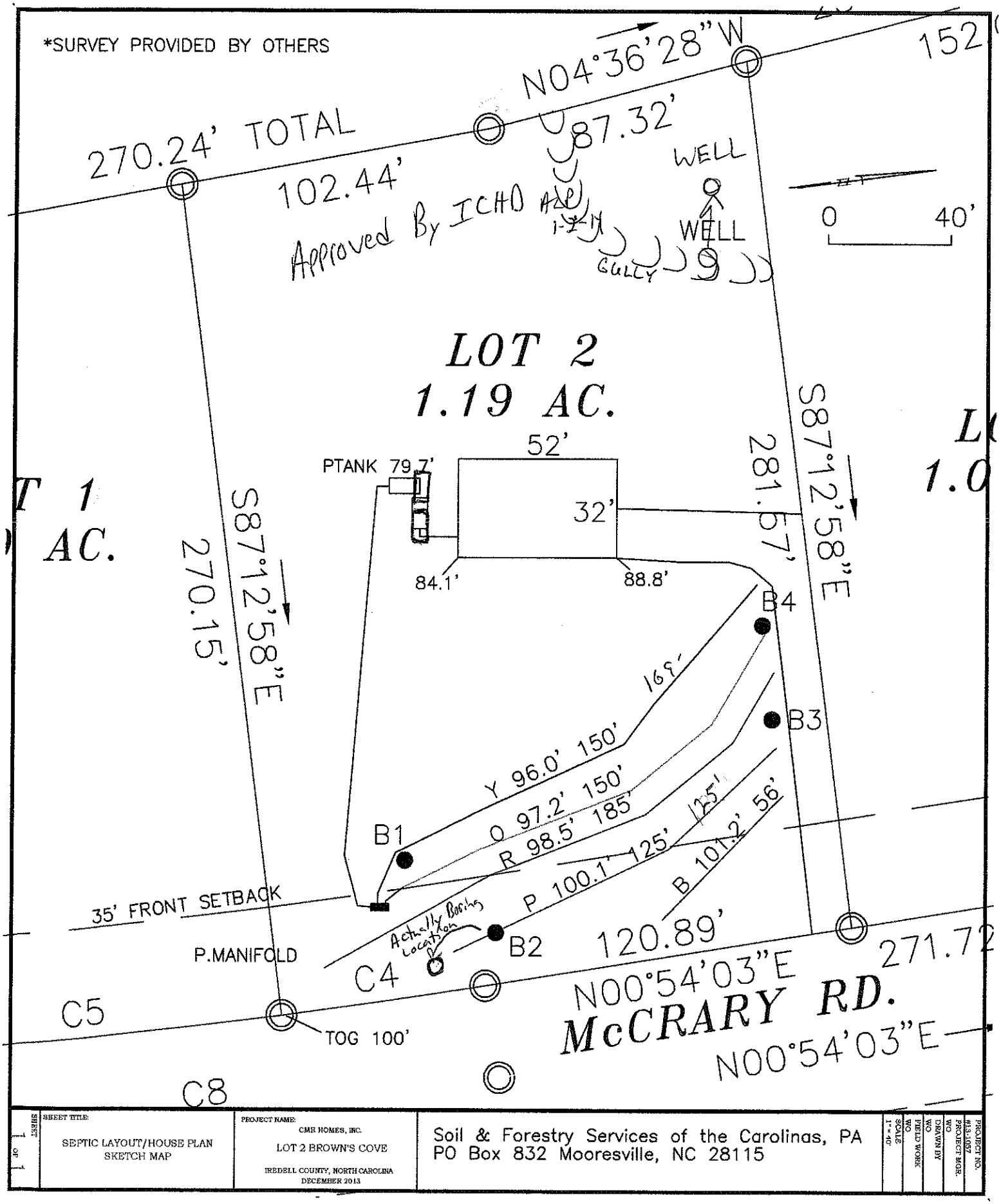
LOCK-OUT BREAKER ON CIRCUIT #6

DRAWING TITLE: ELECTRICAL PLAN

MODEL NAME: 5715
SQ. FT.: 1542

PLANT	DESCRIPTION	MODEL NO.
957	32X52 3BR-2BA	5715

DRAWN BY	ORIG. DATE	DATE PRINTED	SHEET NO.
GDB	06/18/2013	06/21/2013	11-1



SHEET 1 OF 1	SHEET TITLE: SEPTIC LAYOUT/HOUSE PLAN SKETCH MAP	PROJECT NAME: CMH HOMES, INC. LOT 2 BROWN'S COVE IREDELL COUNTY, NORTH CAROLINA DECEMBER 2013	Soil & Forestry Services of the Carolinas, PA PO Box 832 Mooresville, NC 28115	SCALE 1" = 40' · FIELD WORK WO · DRAWN BY WO · PROJECT MGR. · PROJECT NO. #13-1087

CALCULATIONS

Location 236 McCrary Road-Mooresville

Lot No:	n/a
No. of Bedrooms	3
Design Flow	360 $^{gal}/_{day}$
LTAR	0.30 $^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES
Supply Line Length	160 ft.
Supply Line Volume	27.84 gal.
Required Feet of Line	300 ft.
Amount of Line from Layout	300 ft.
Gallons per Minute	14.22 $^{gal}/_{min}$
Required Septic Tank Capacity	1000 gal.
Minimum Standard Tank Size	1000 gal.
Lateral Line Volume	195.9 gal.
Dosing Volume	137.13 gal.

Note: Dosing Volume based on70% of lateral line volume

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
28.44	1.62
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

Tank Draw Down	6.5 inches *(Generic Draw Down of 21 gal.per in.)*
Pump Run Time	9.64 minutes
Elevation Head	23 ft.
Pressure Head	2 ft.
Friction Factor	0.84 ft./100 ft. *(From the interpolater.)*
Friction Head	1.34 ft.
Total Dynamic Head (+15%)	30.30 ft.